

FIG.1

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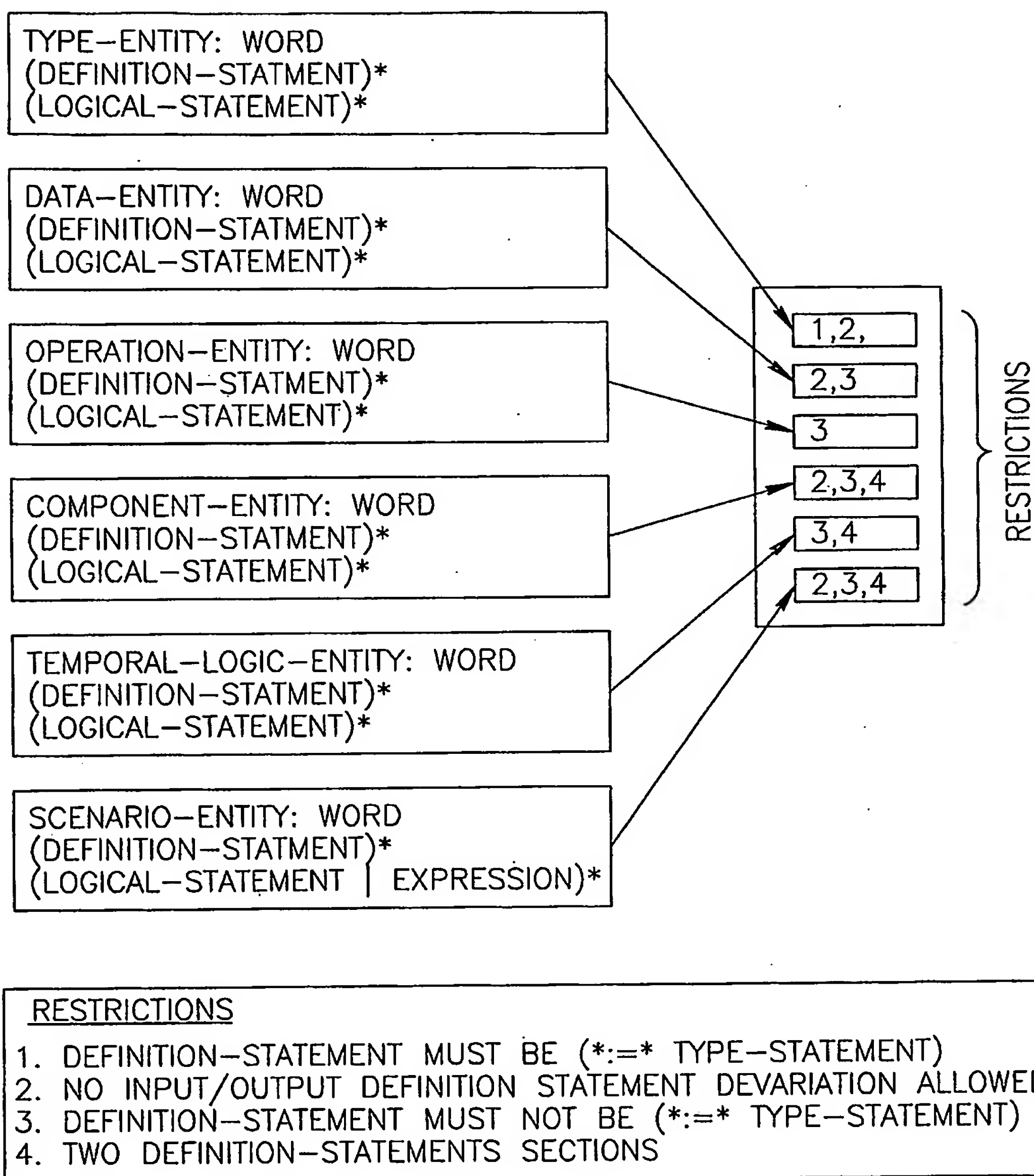


FIG.2

SUBSTITUTE SHEET (RULE 26)

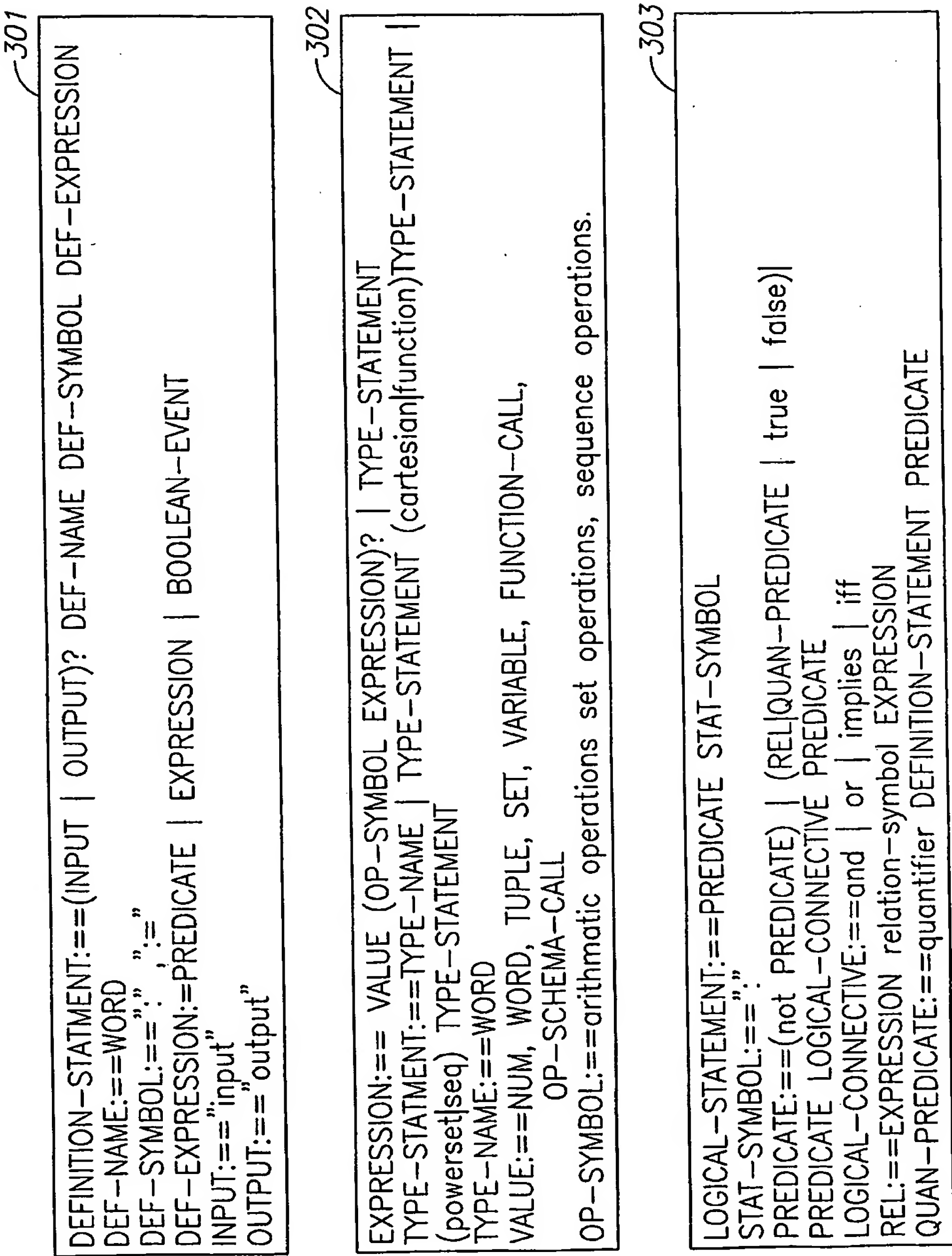


FIG.3

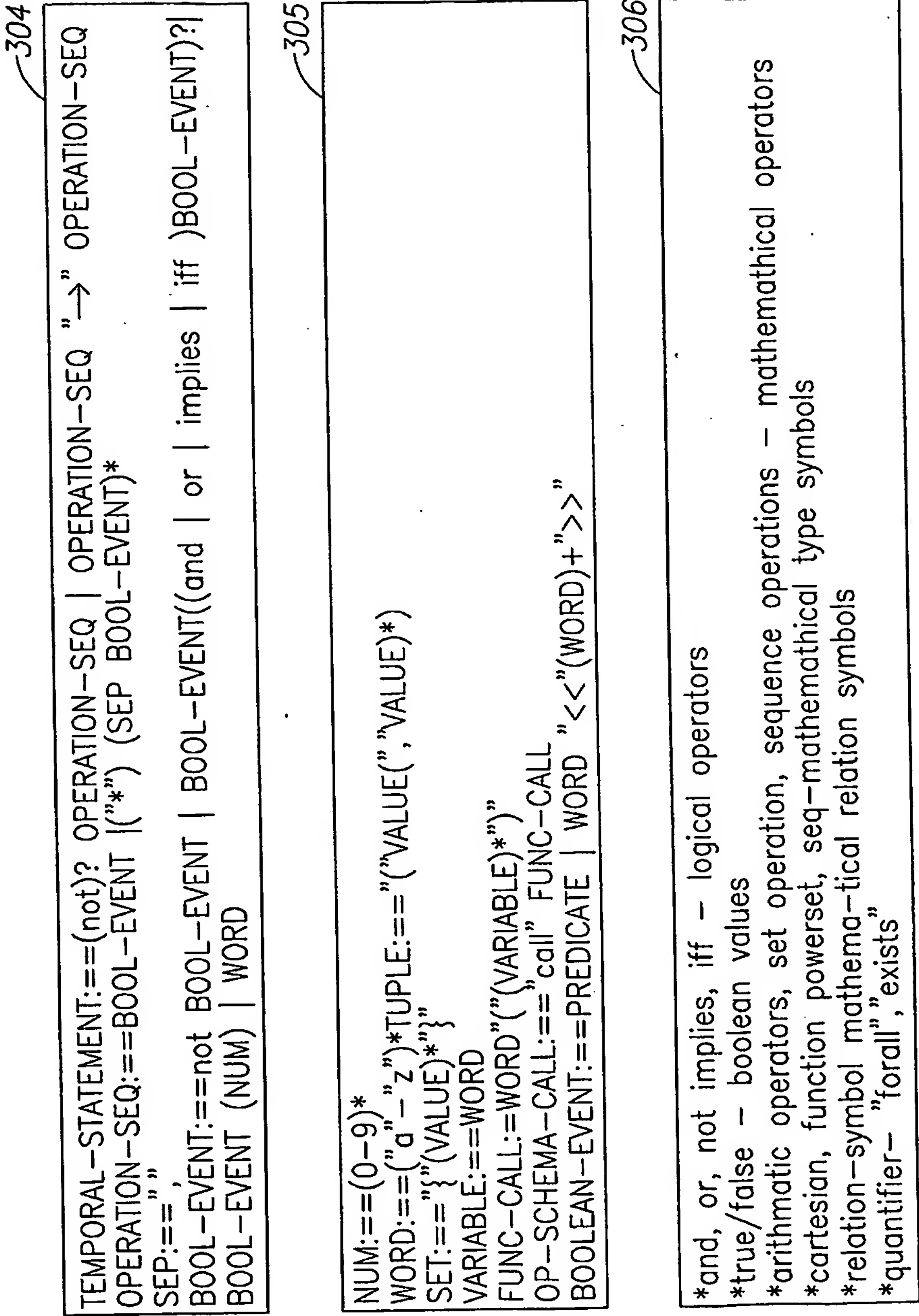


FIG.3

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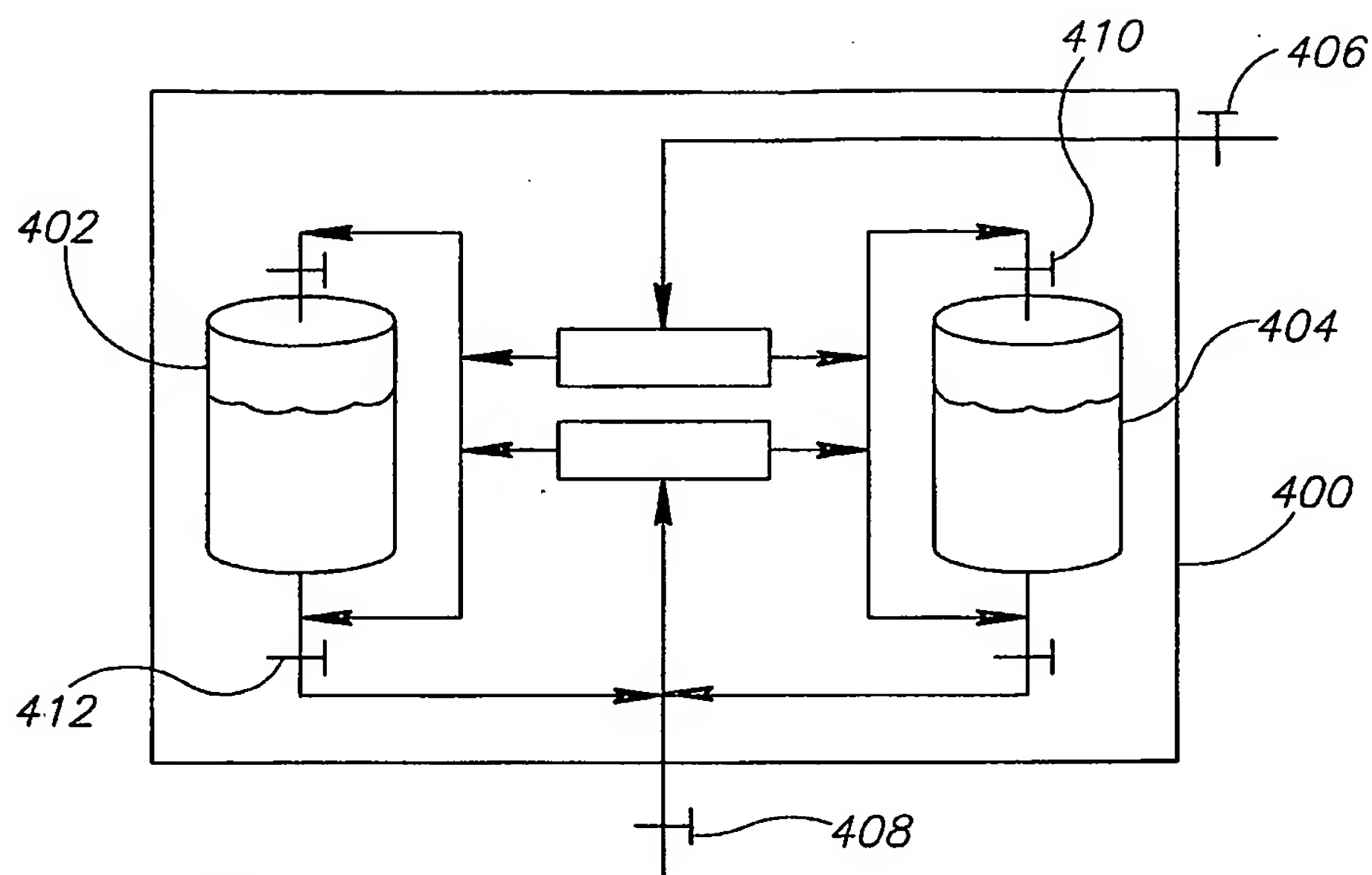


FIG.4

COMPONENT ENTITY:

StorageContainer

VARIABLES:

container : CONTAINER ;

INITIALIZATION:

st1, st2: STORAGETANK;

st1=STORAGETANK (100);

st2=STORAGETANK (100);

container = CONTAINER(st1,st2);

EXPLANATION:

FIG.5

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DATA ENTITY:
Container

VARIABLES:
st1, st2: STORAGETANK;

INVARIANTS:

EXPLANATION:

FIG.6

DATA ENTITY:
StorageTank

VARIABLES:
contents : naturals;
capacity : naturals;

INVARIANTS:
capacity \geq contents

EXPLANATION:

FIG.7

TYPE ENTITY:
SpecificationTypes

TYPE DEFINITIONS:
naturals : integers;
IndicationMessage:= {SUCCESS, FAIL}

RESTRICTIONS:
 $\forall n: \text{naturals} \bullet n \geq 0;$

EXPLANATION:

FIG.8

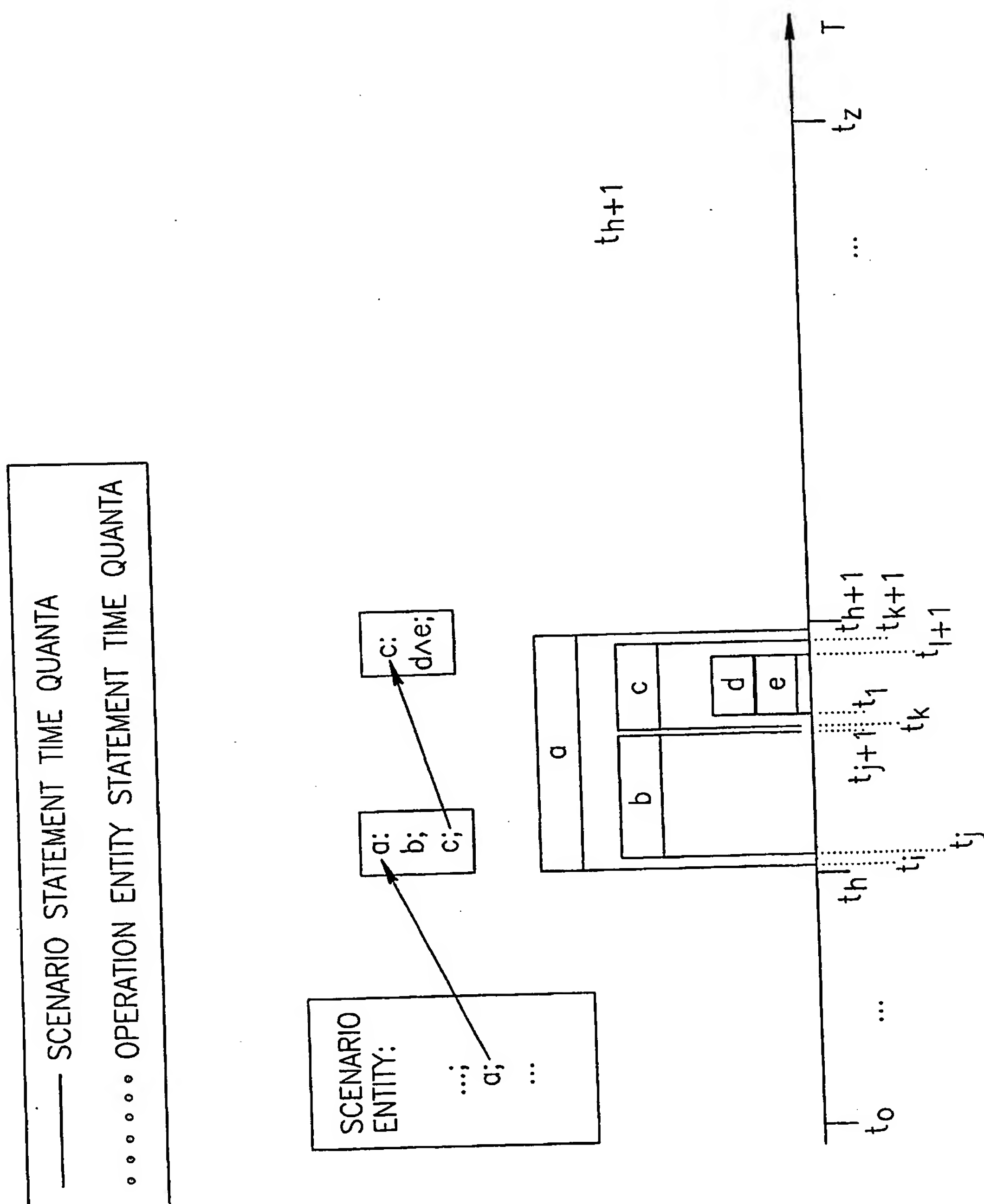


FIG. 9

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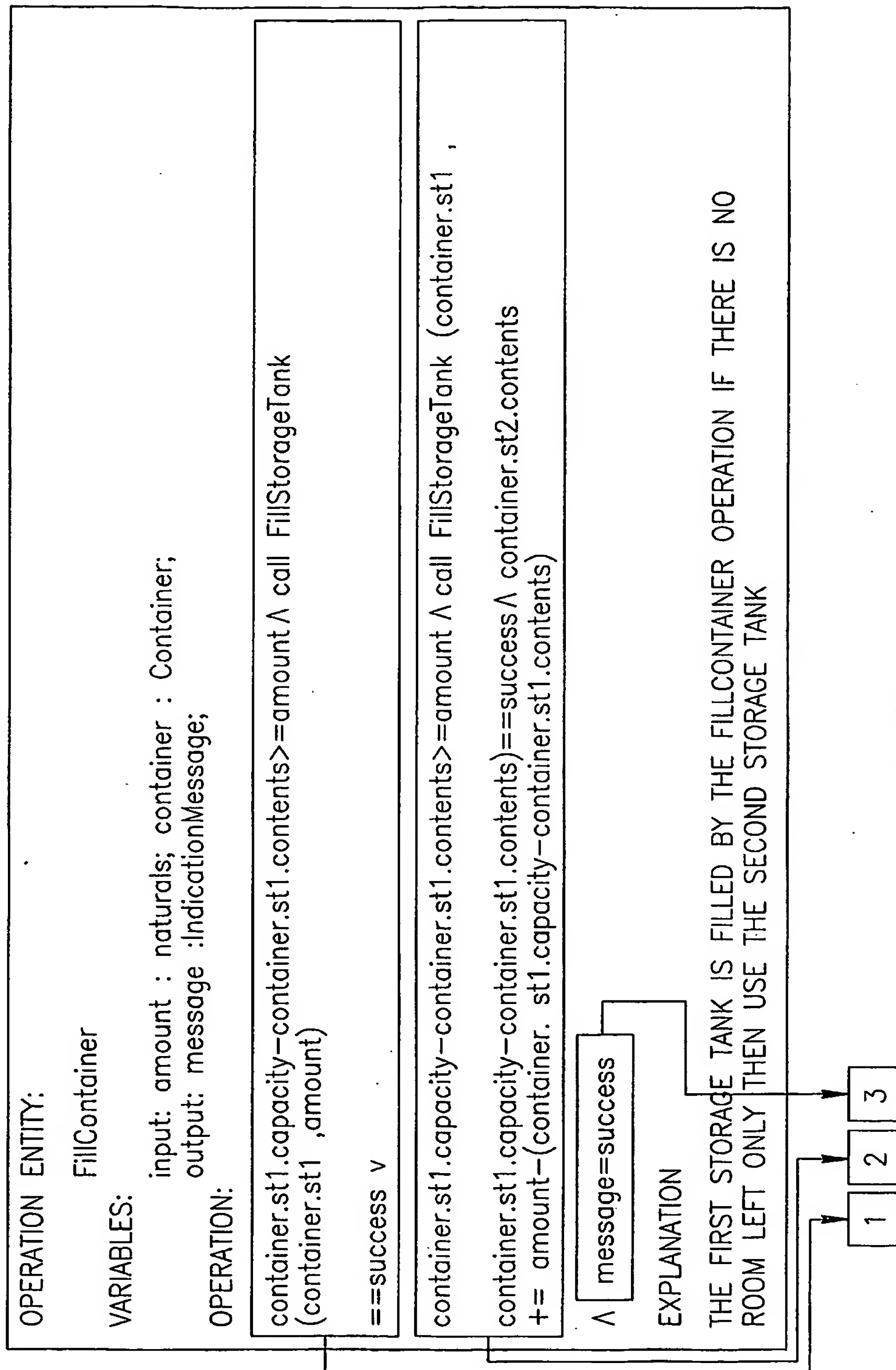


FIG. 10

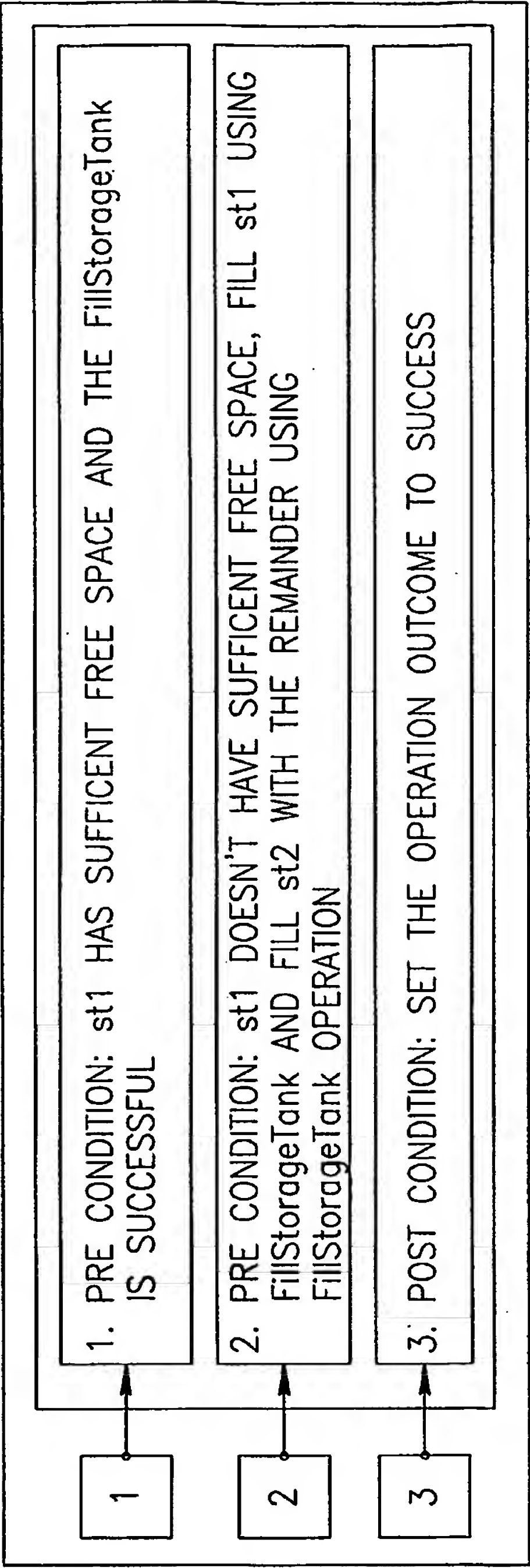


FIG.10A

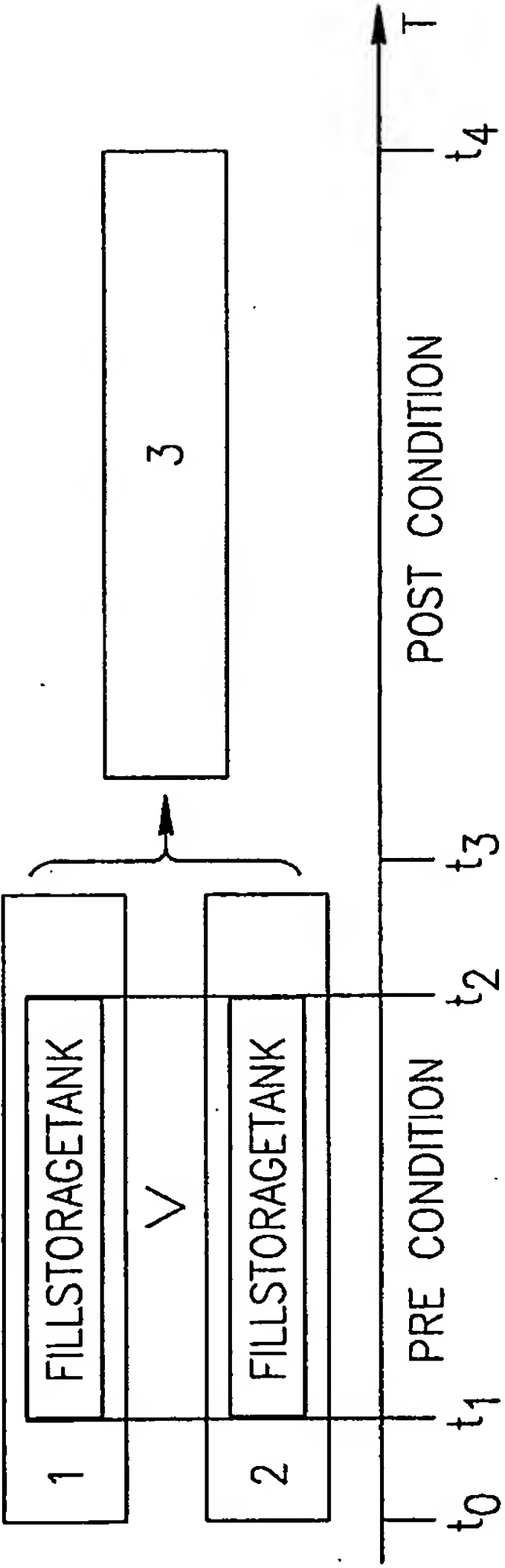


FIG.10B

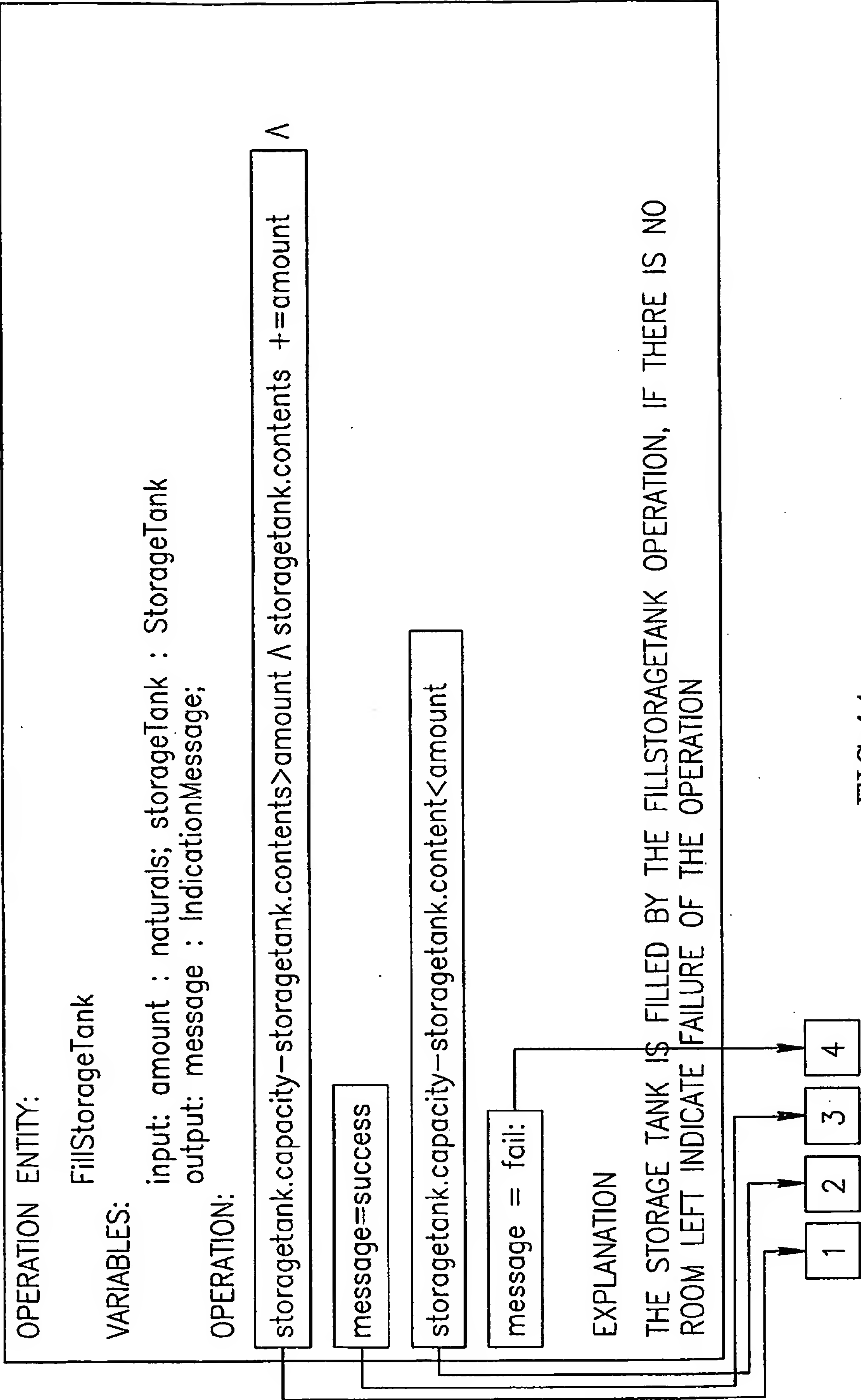


FIG.11

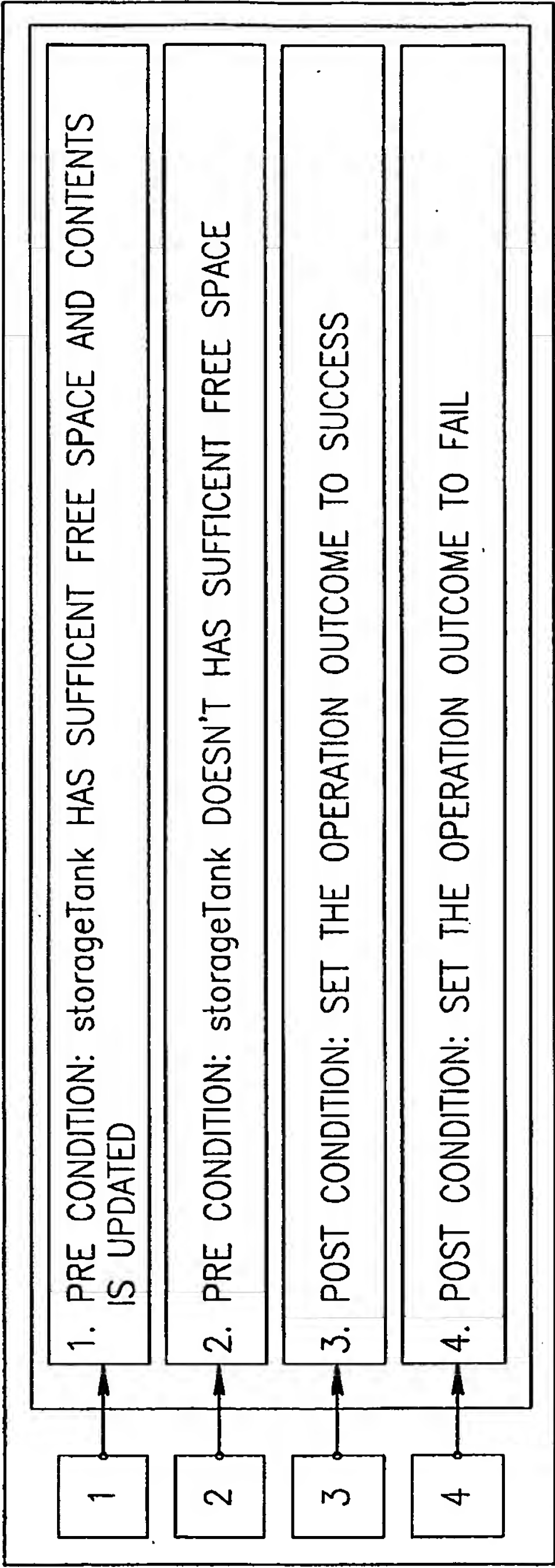


FIG.11A

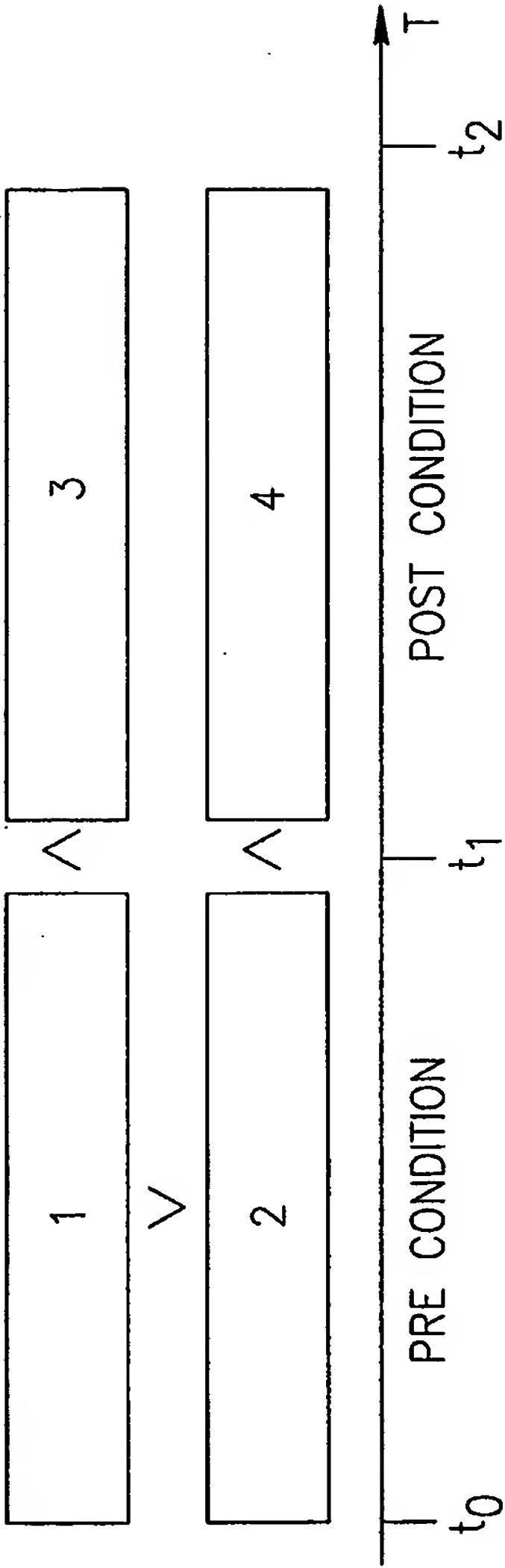


FIG.11B

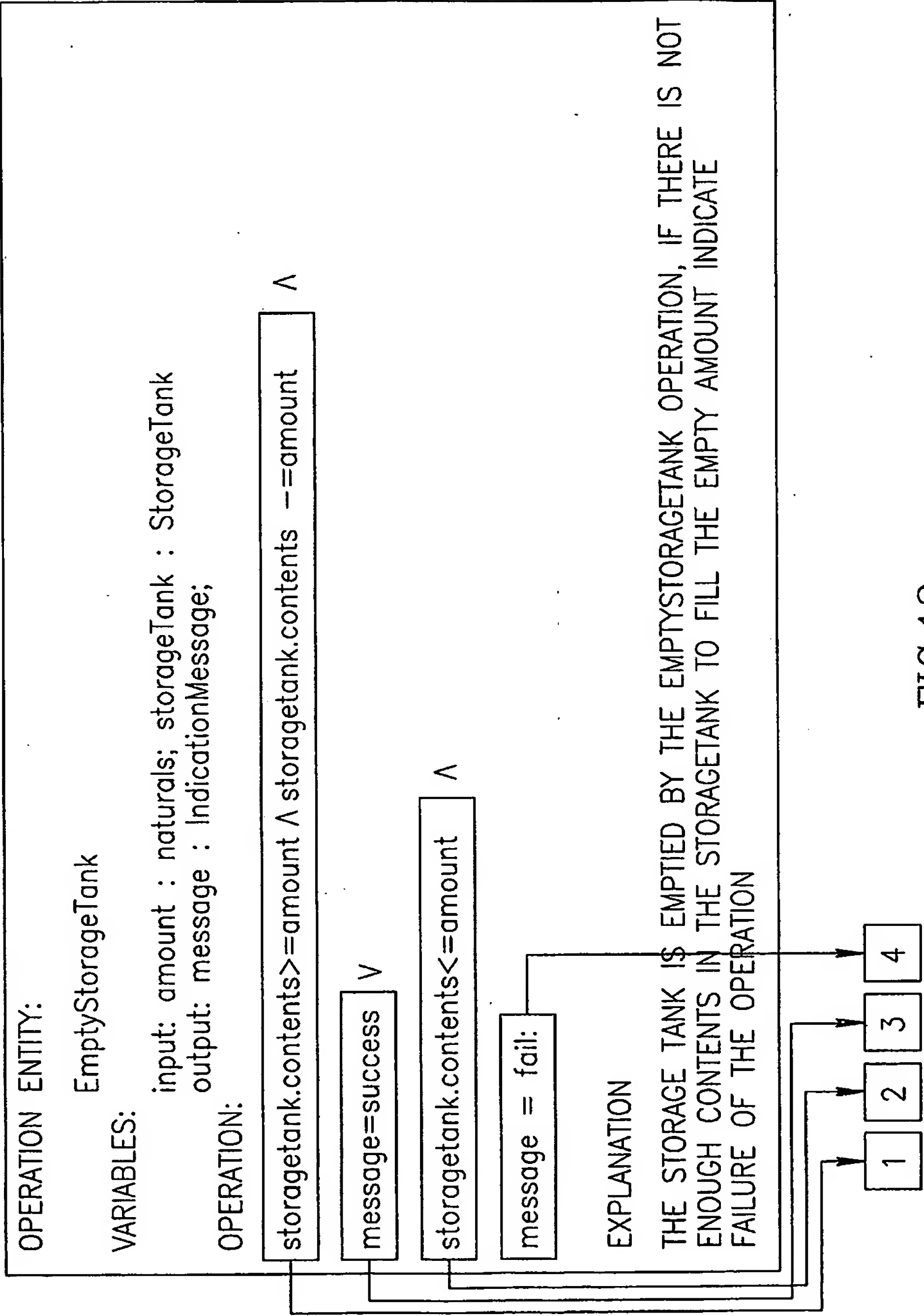


FIG.12

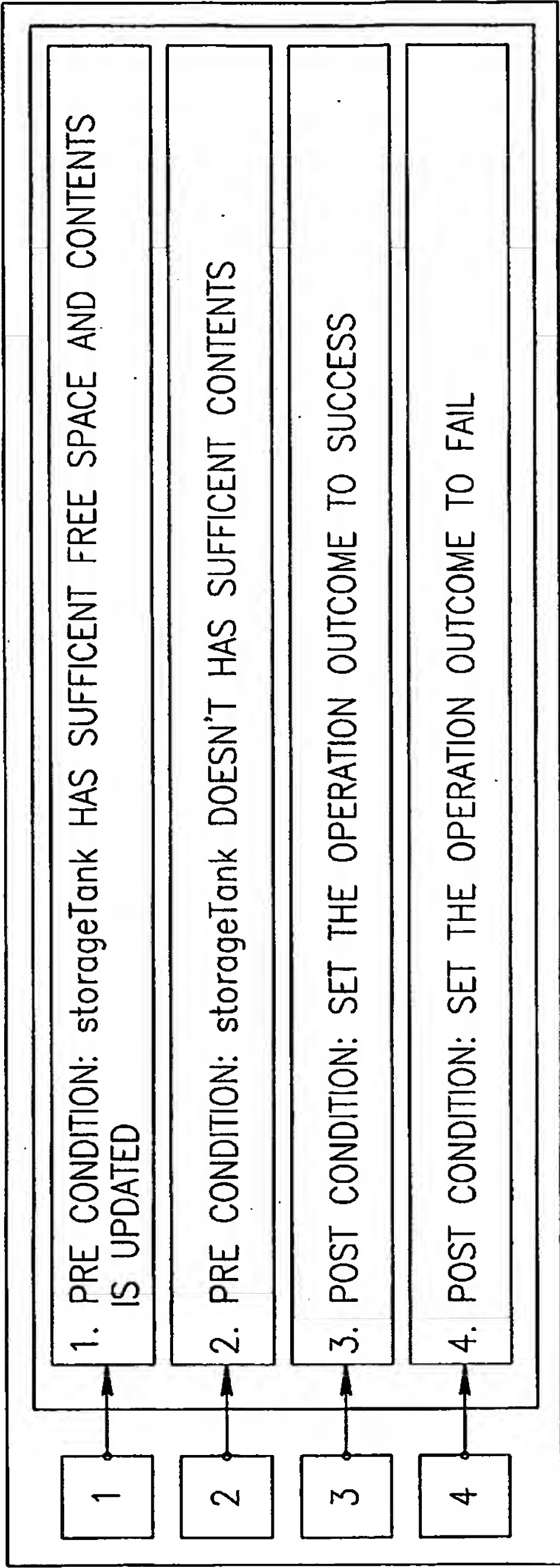


FIG.12A

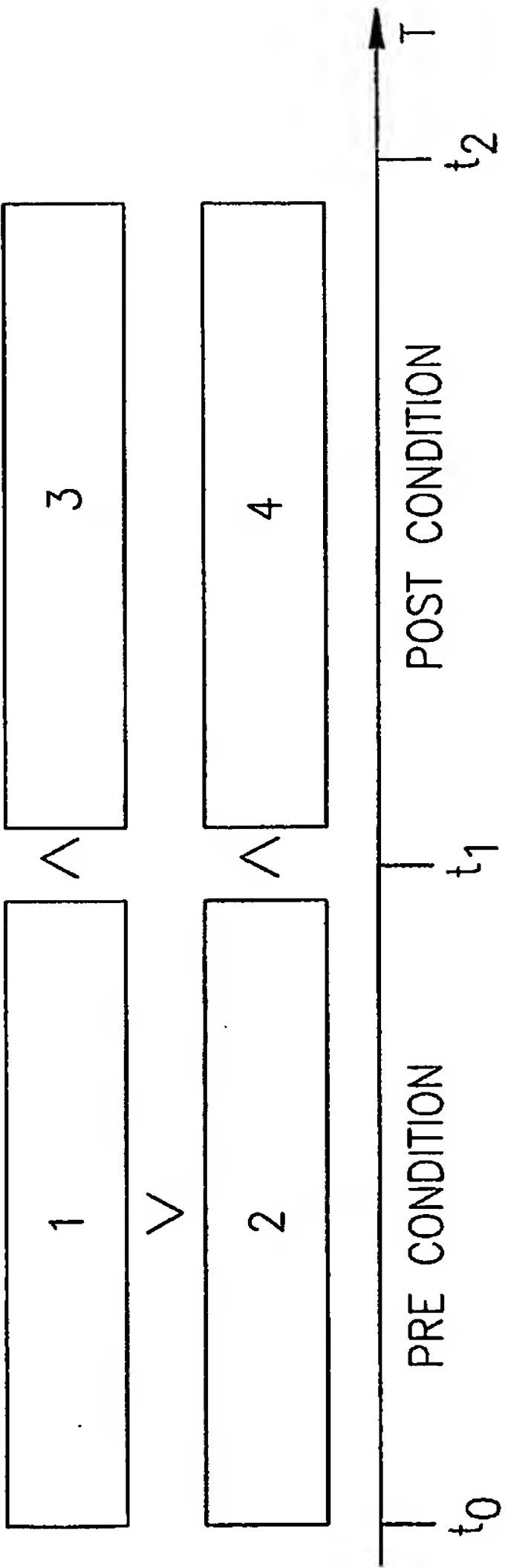


FIG.12B

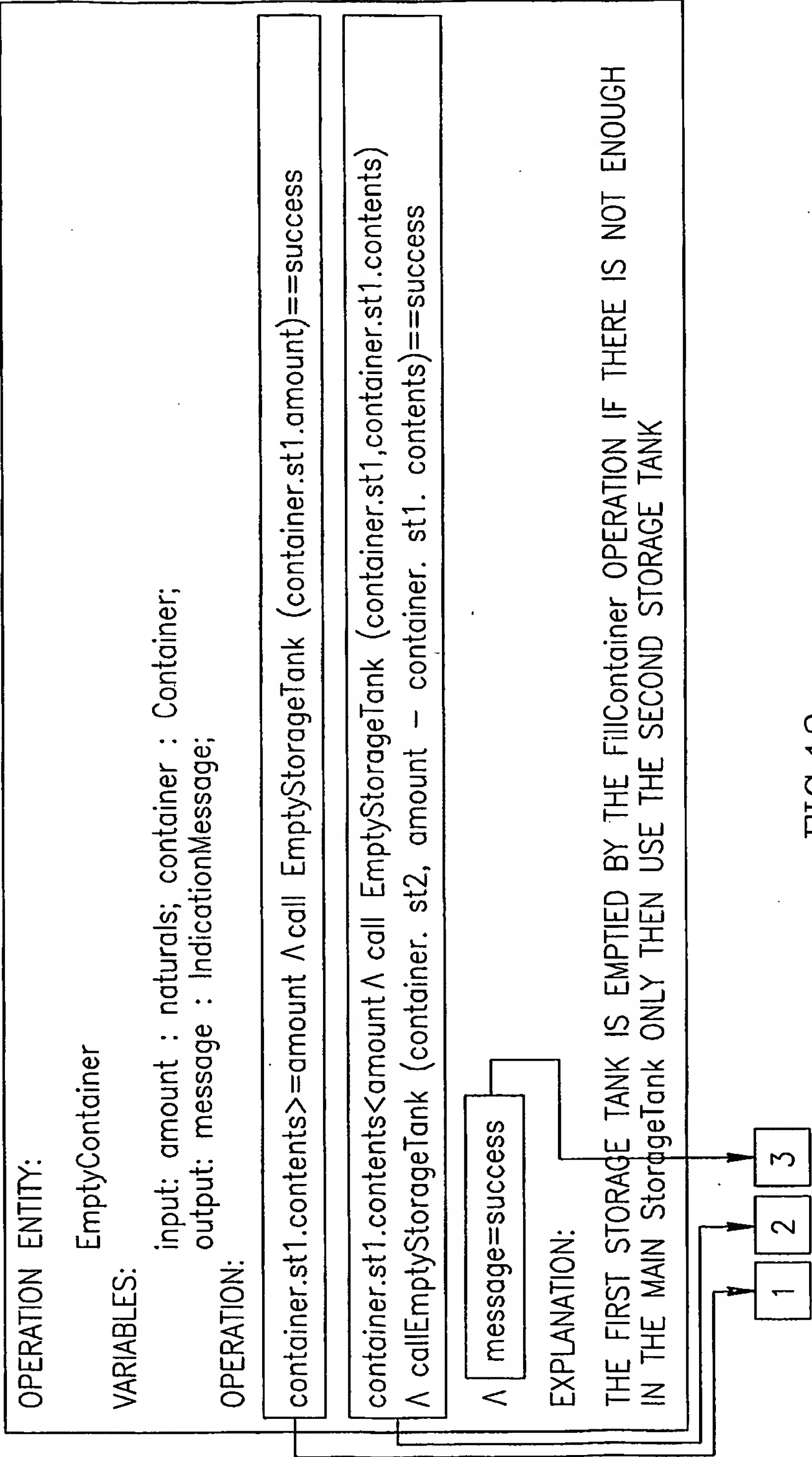


FIG.13

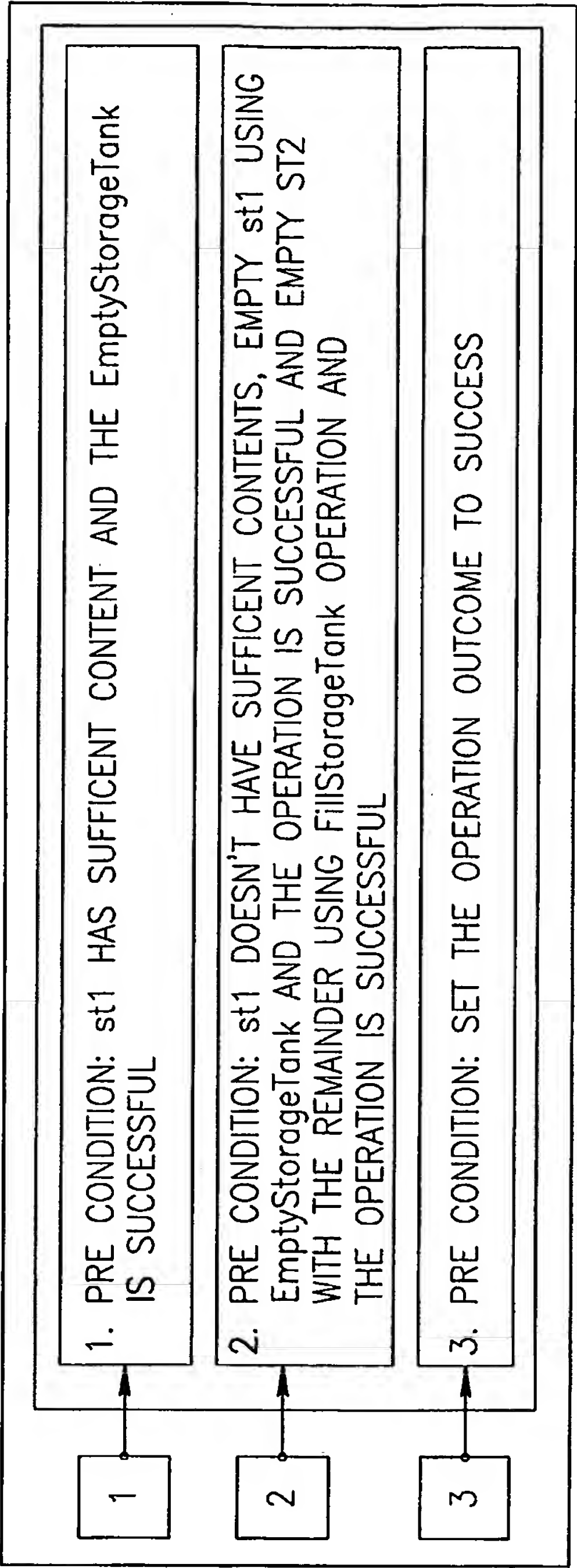


FIG.13A

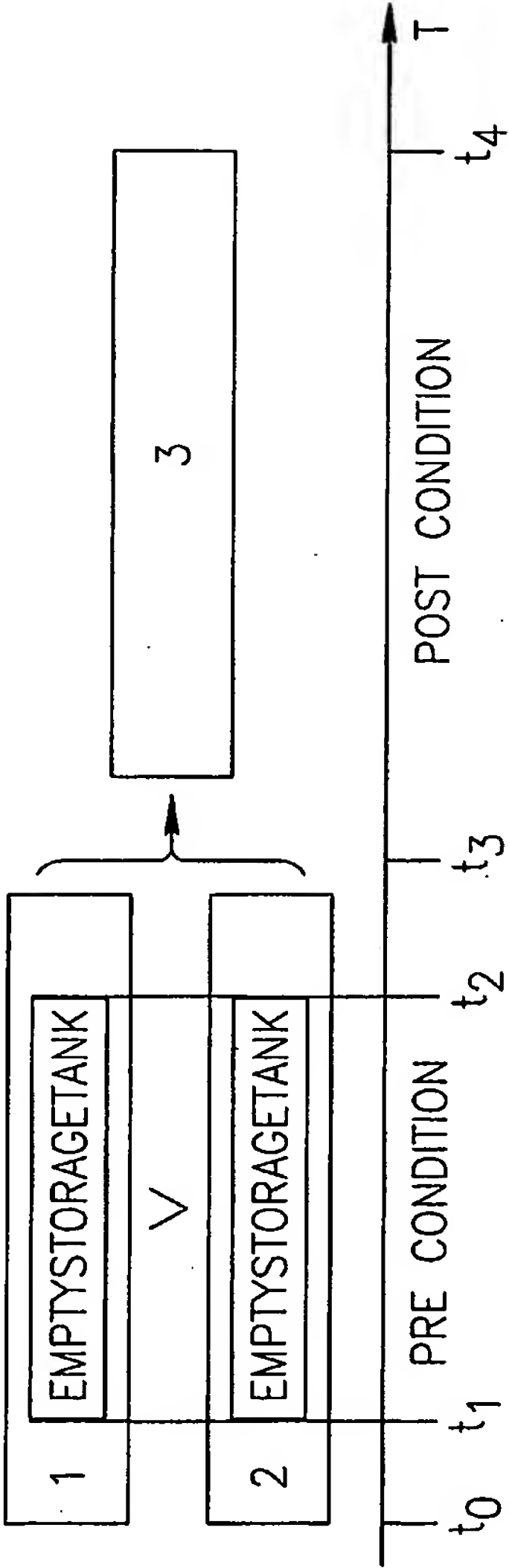


FIG.13B

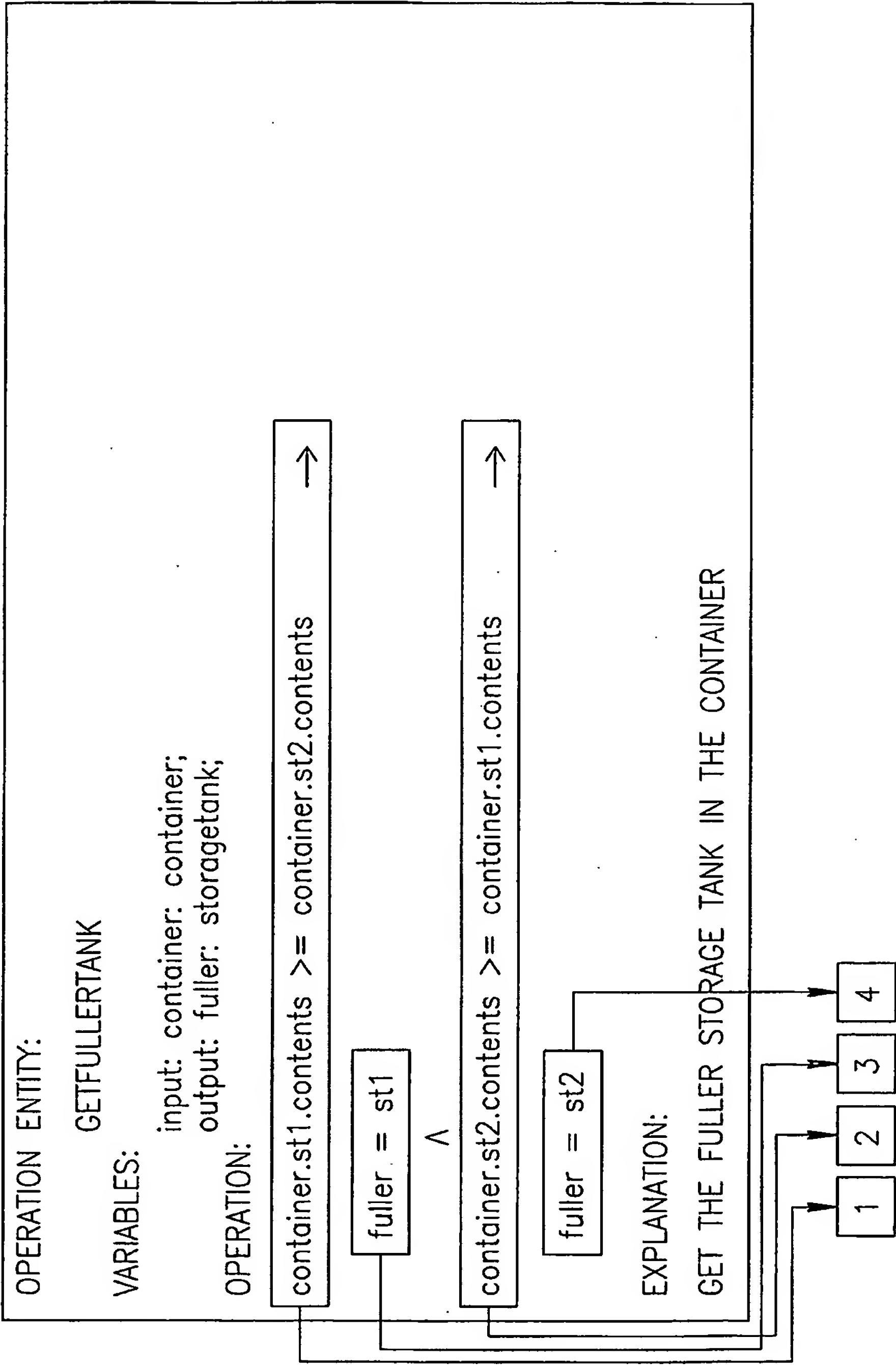


FIG.14

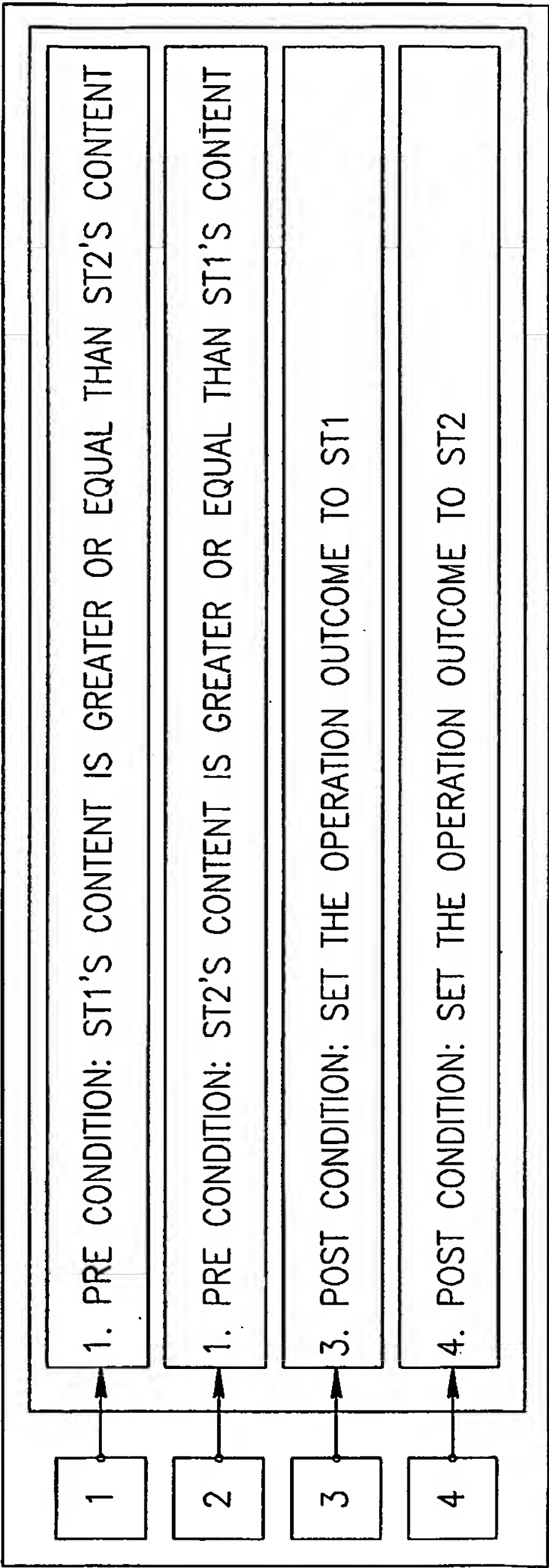


FIG.14A

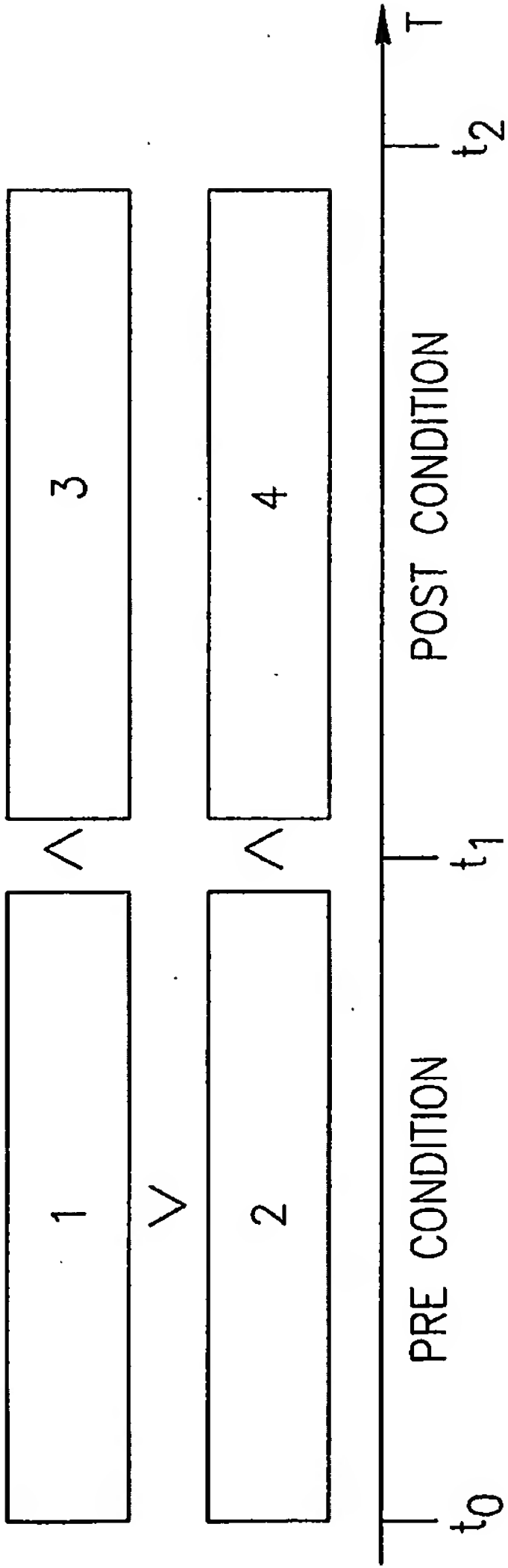


FIG.14B

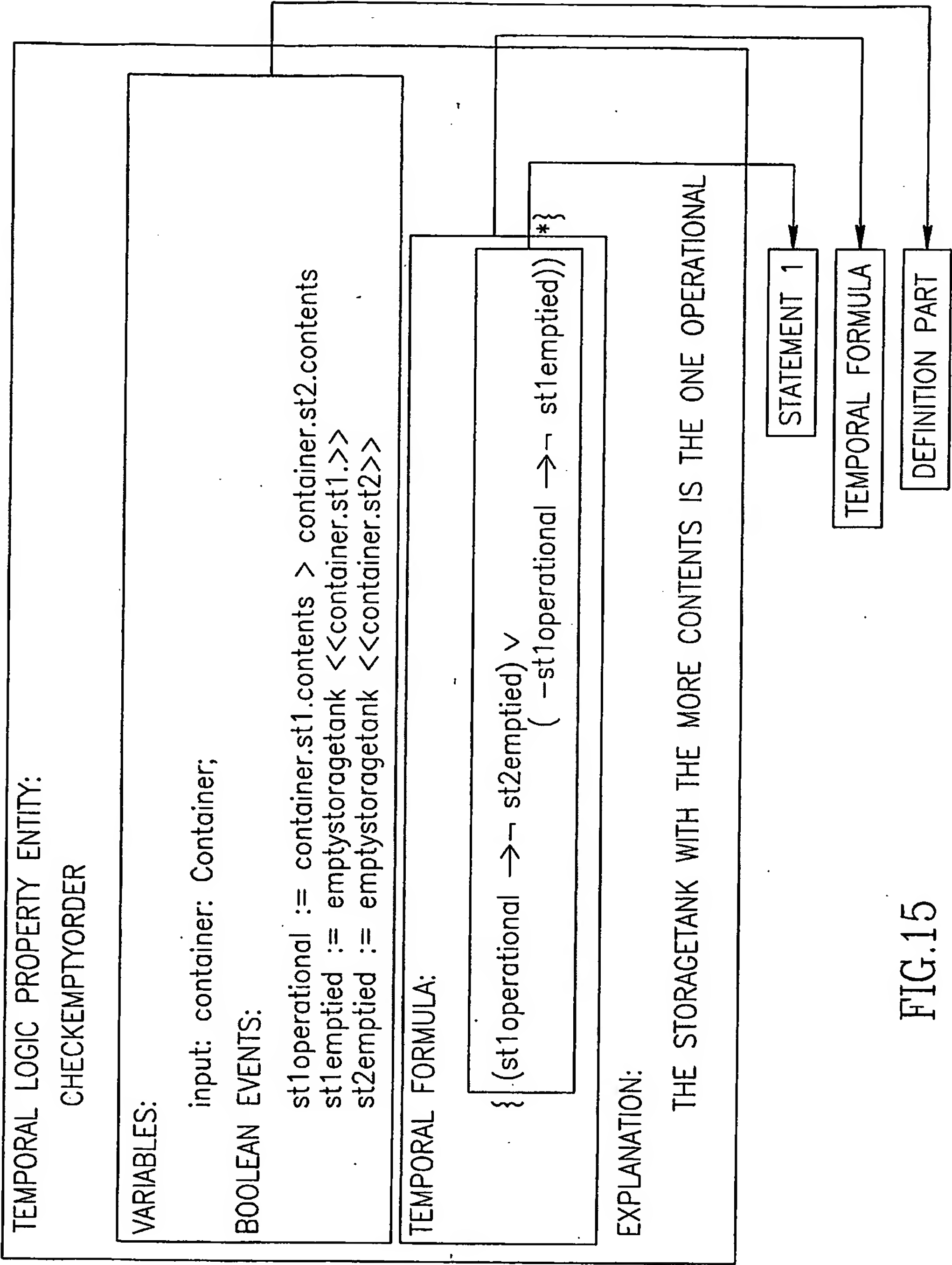


FIG.15

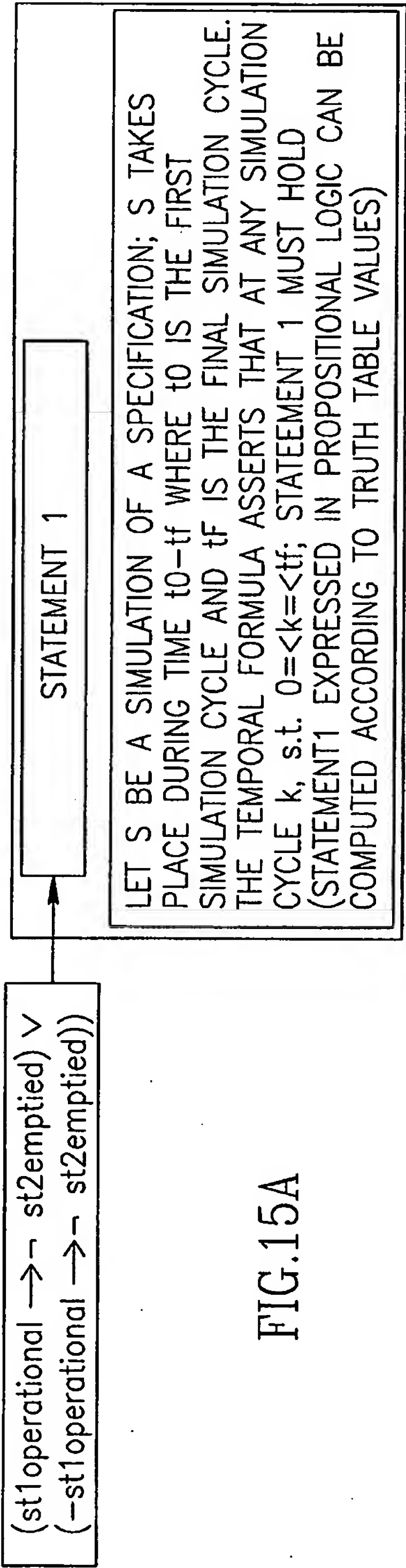


FIG.15A

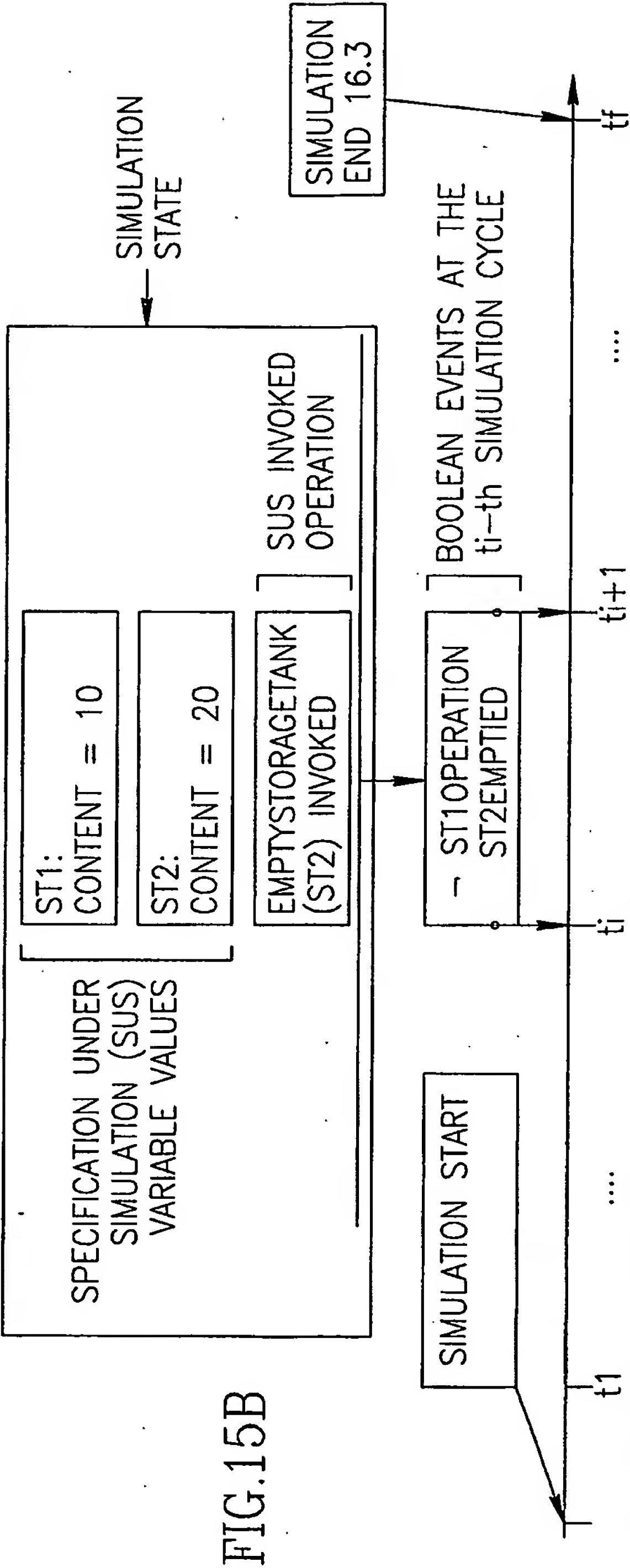


FIG.15B

THE TEMPORAL PROPERTY IS ASSIGNED WITH RESPECT TO THE COMPUTATION PATH. THE COMPUTATION PATH IS COMPOSED OF THE BOOLEAN EVENTS HOLDING IN EACH OF THE COMPUTATION PATH CYCLES.

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SCENARIO EXECUTION ENTITY:

test1

COMPONENT:

StorageContainer;

EXTERNAL VARIABLES:

SCENARIO:

call fillcontainer(storagecontainer.container, 100) ;

call fillcontainer(storagecontainer.container, 100) ;

call getfullertank();

FIG.16

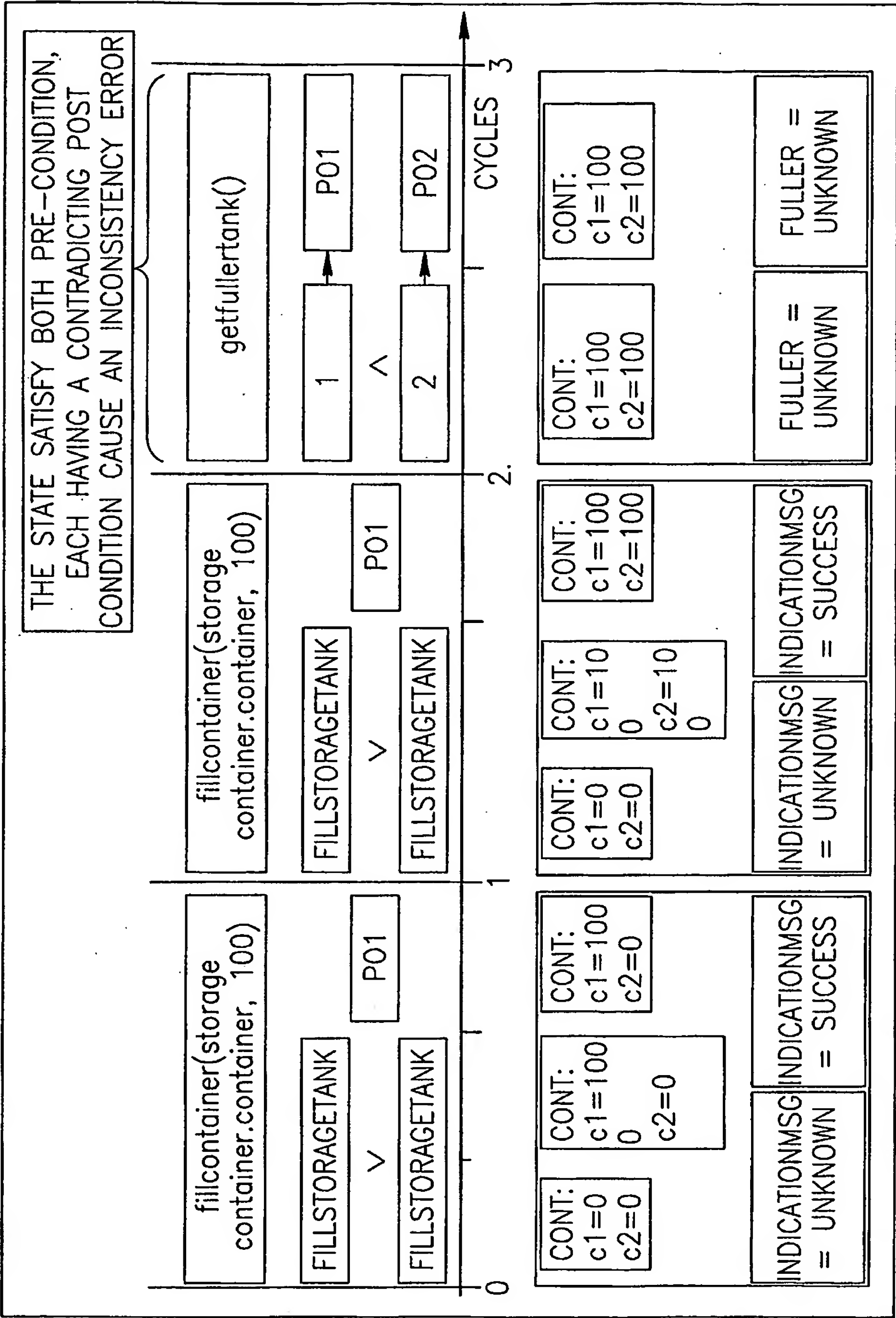


FIG.16A

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SCENARIO EXECUTION ENTITY:

test2

COMPONENT:

storagecontainer;

EXTERNAL VARIABLES:

SCENARIO:

call fillcontainer(storagecontainer.container, 50) ;

call fillcontainer(storagecontainer.container, 50) ;

call fillcontainer(storagecontainer.container, 100) ;

call fillcontainer(storagecontainer.container, 100) ;

FIG.17

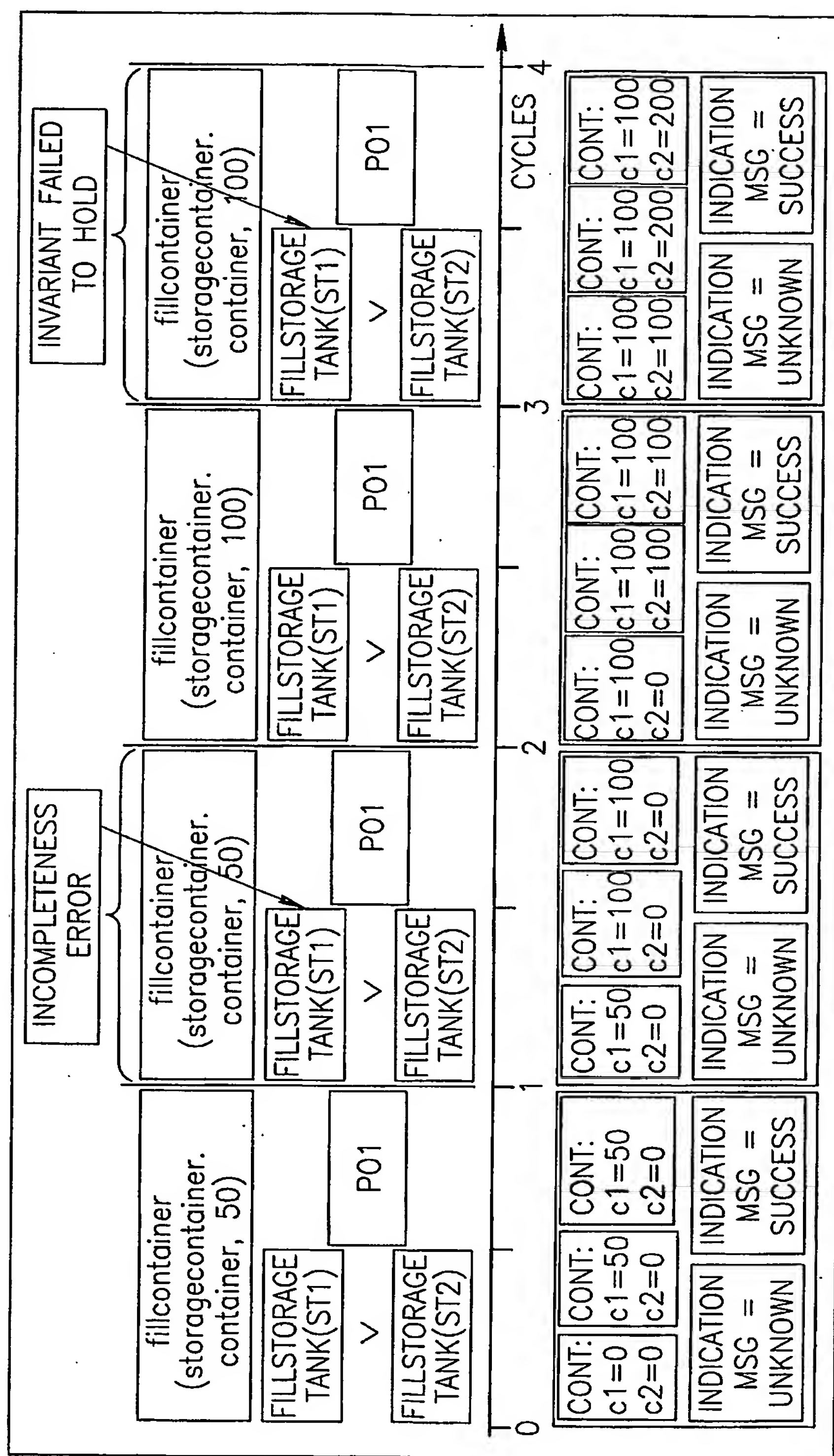


FIG. 17A

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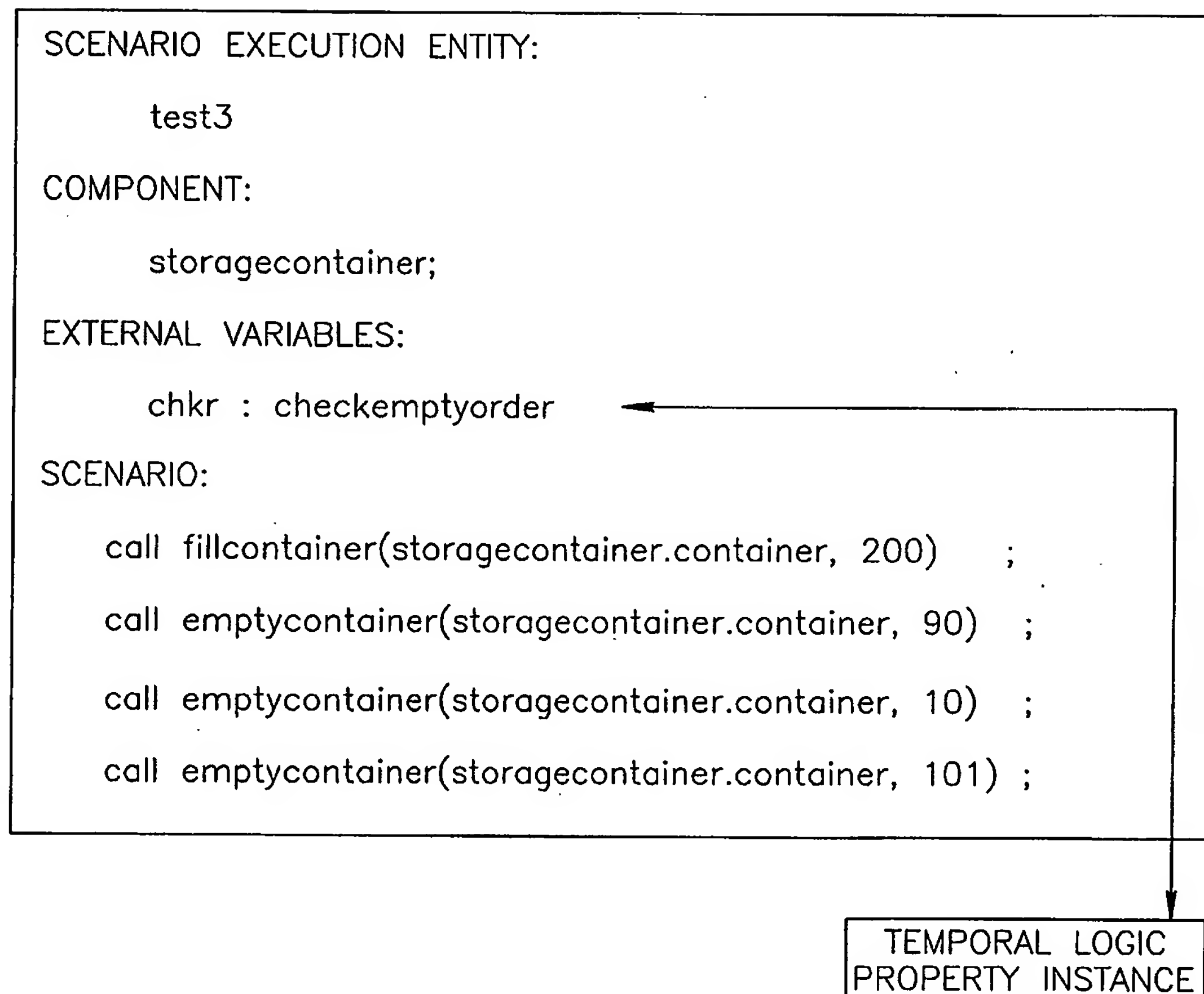


FIG.18

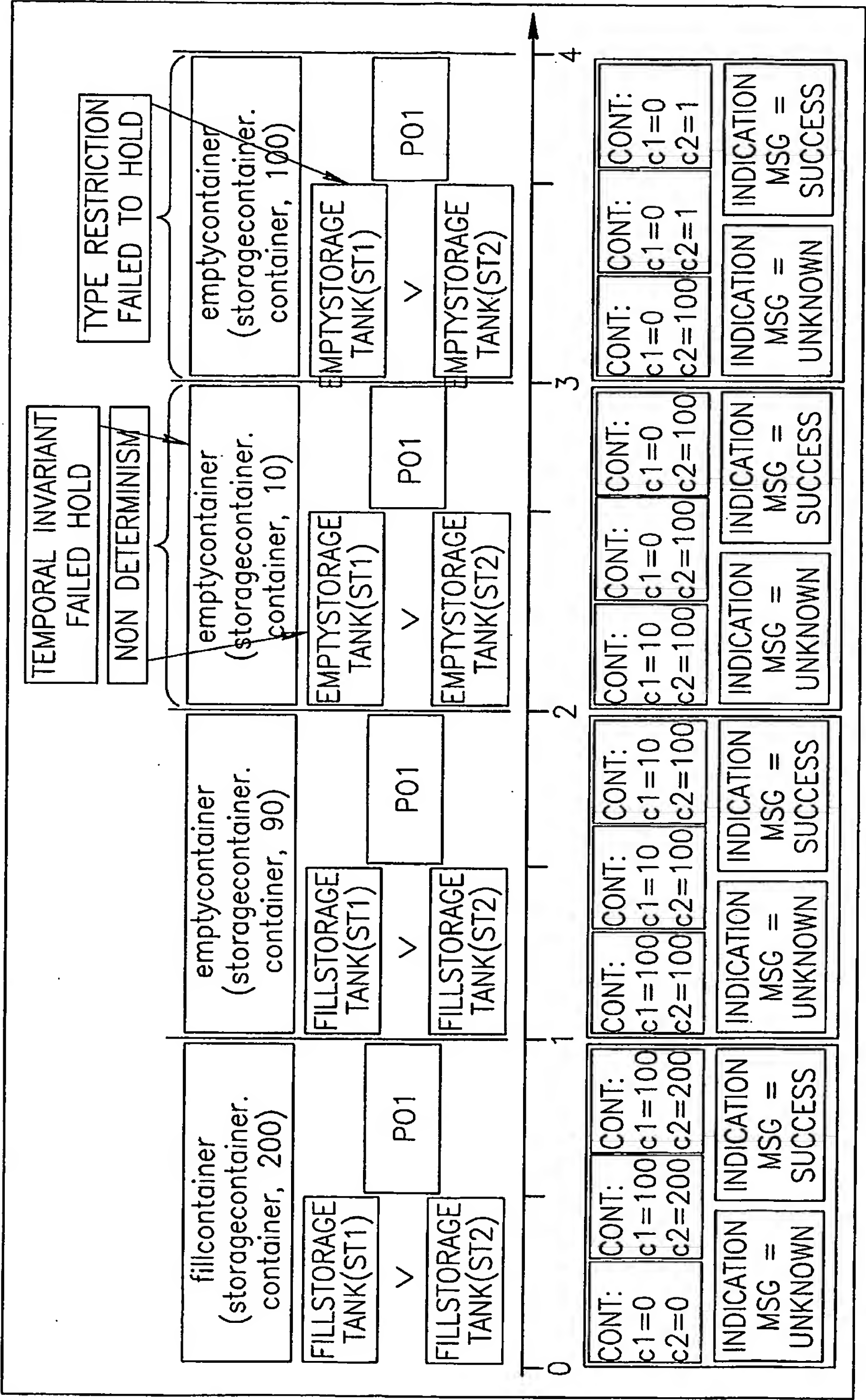


FIG.18A

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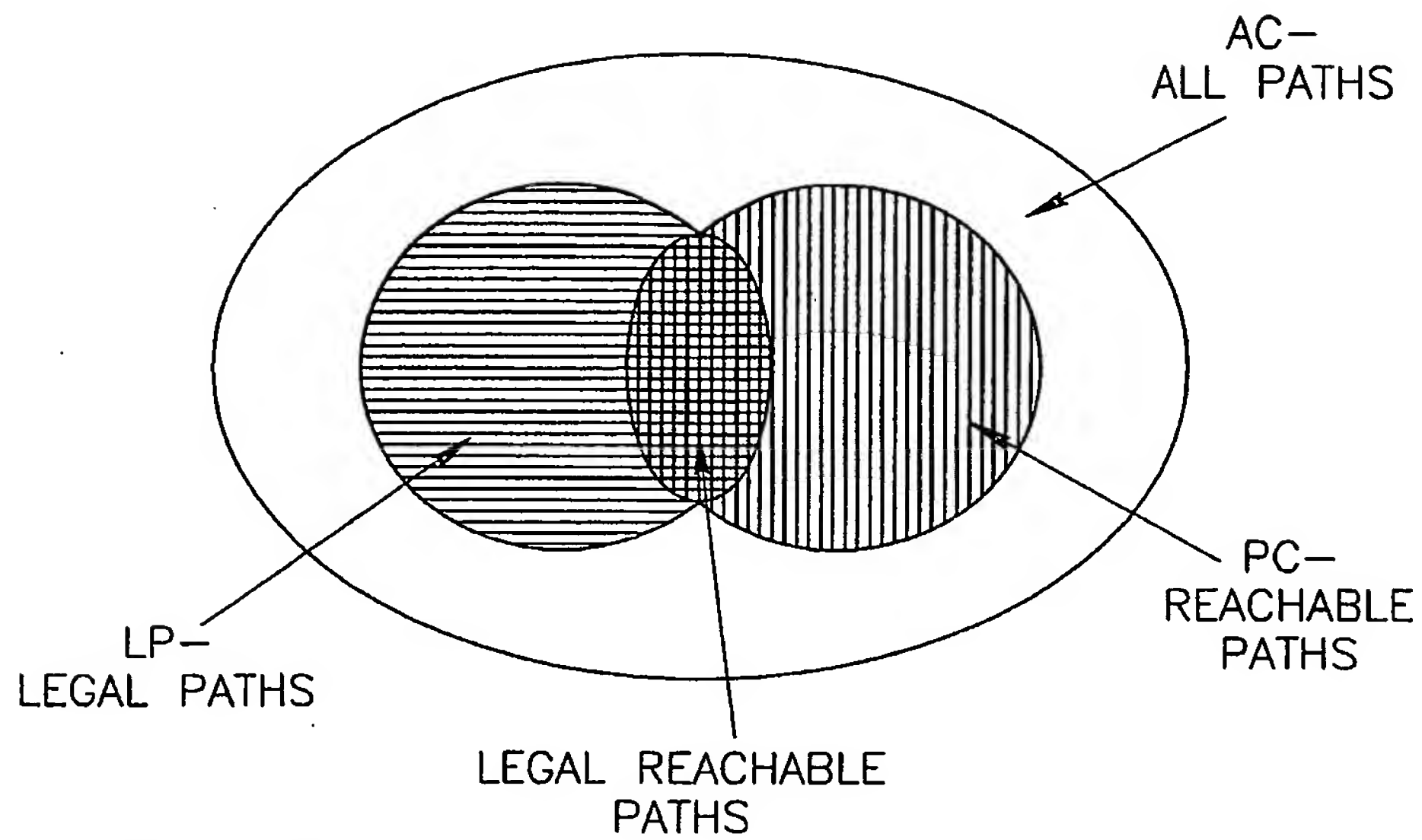


FIG.19

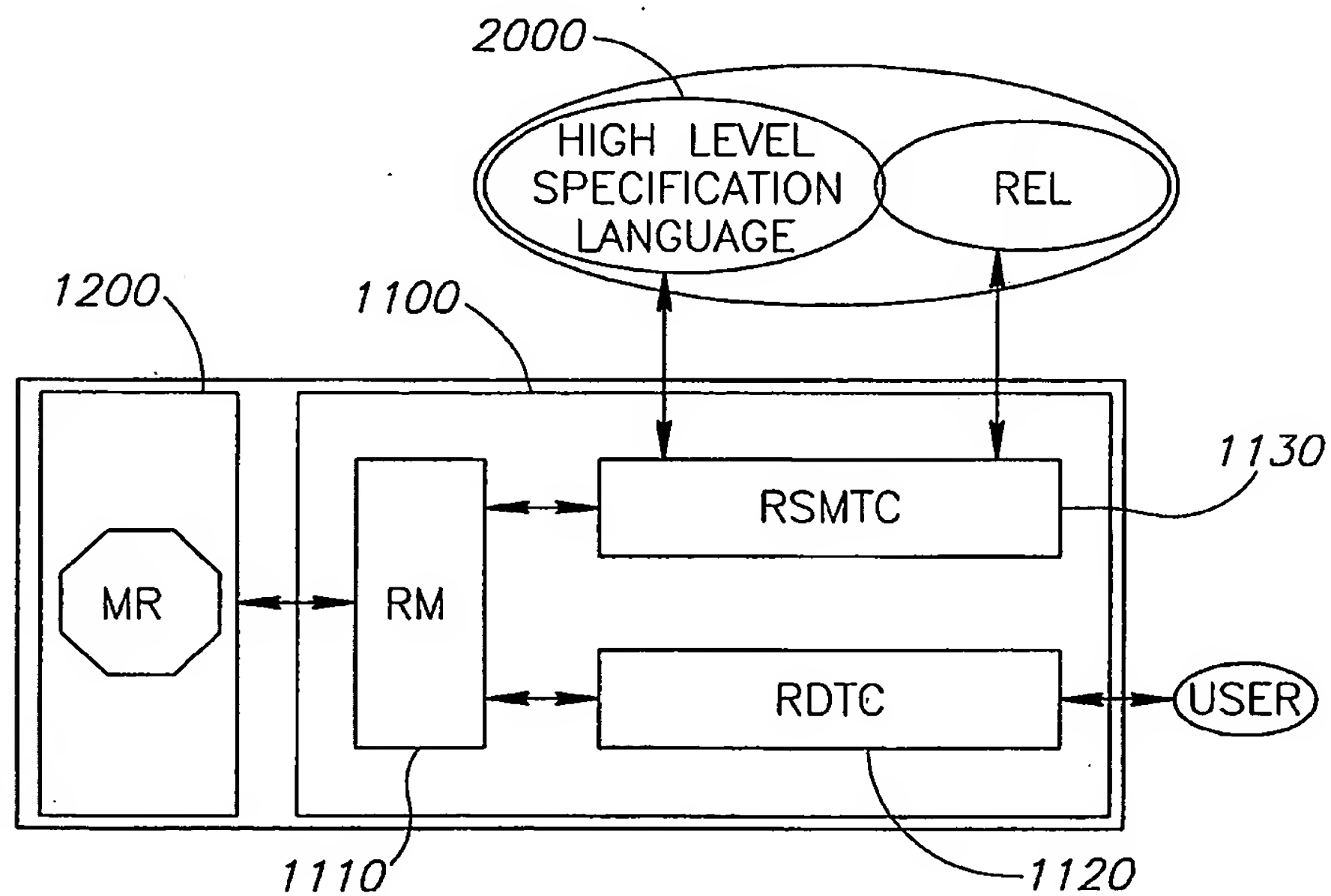


FIG.20

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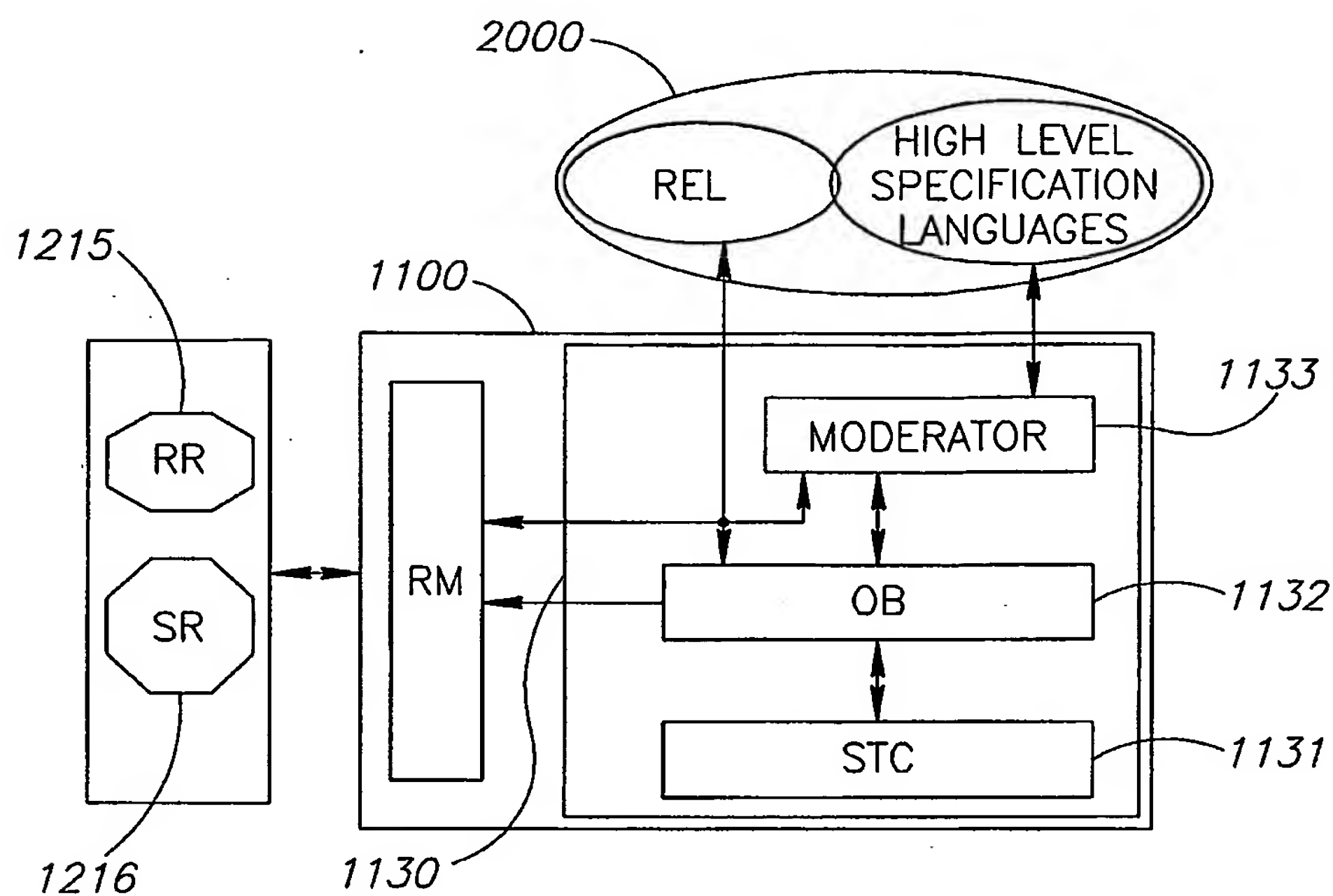


FIG. 21

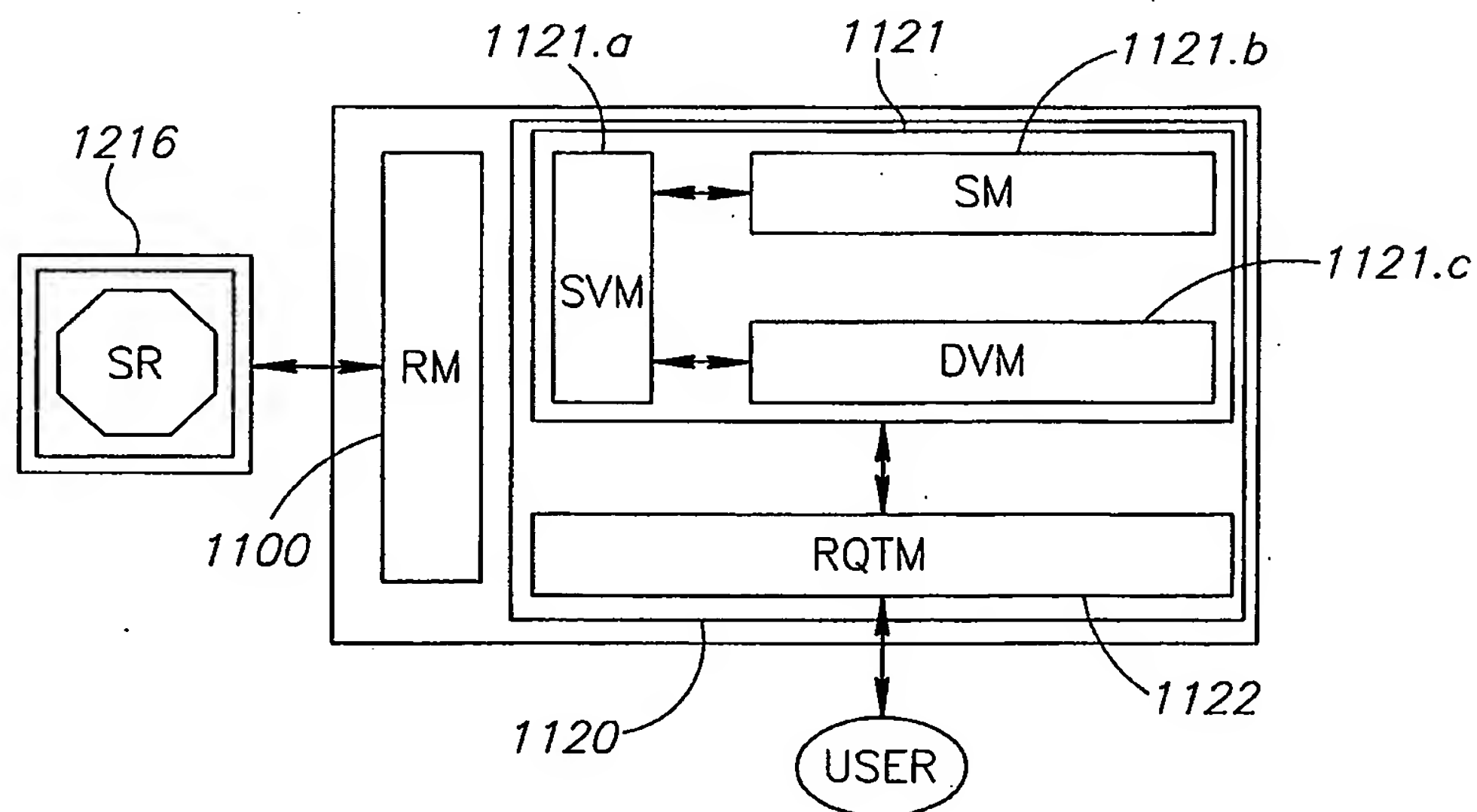


FIG. 22

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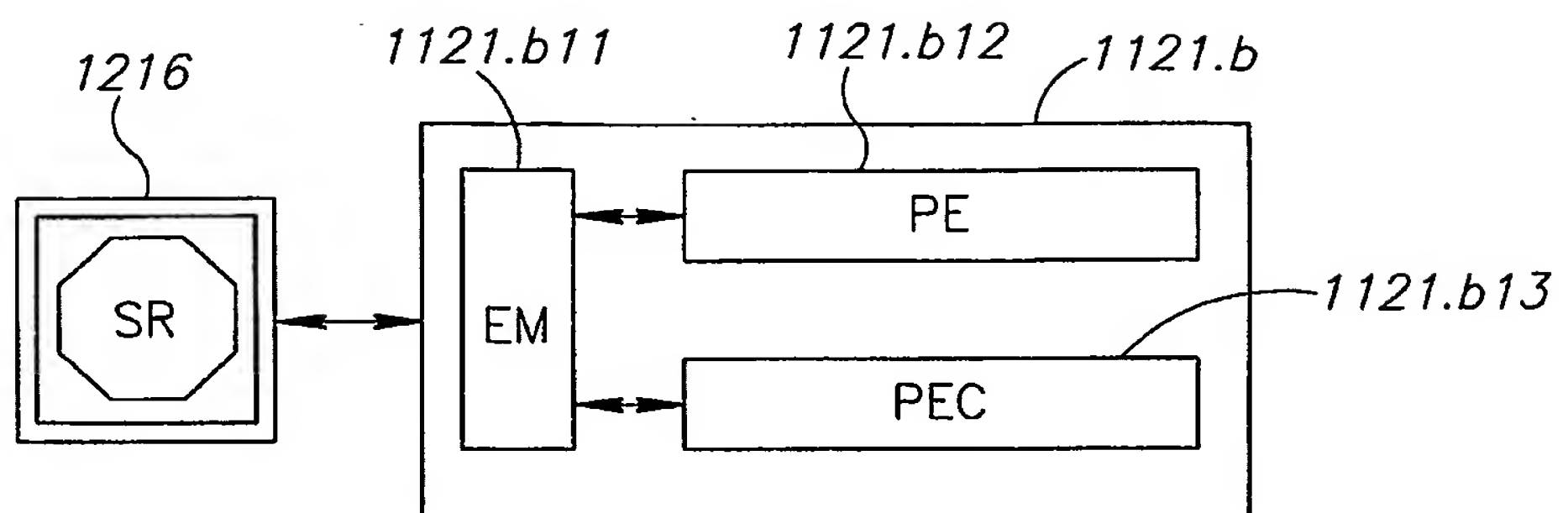


FIG.23

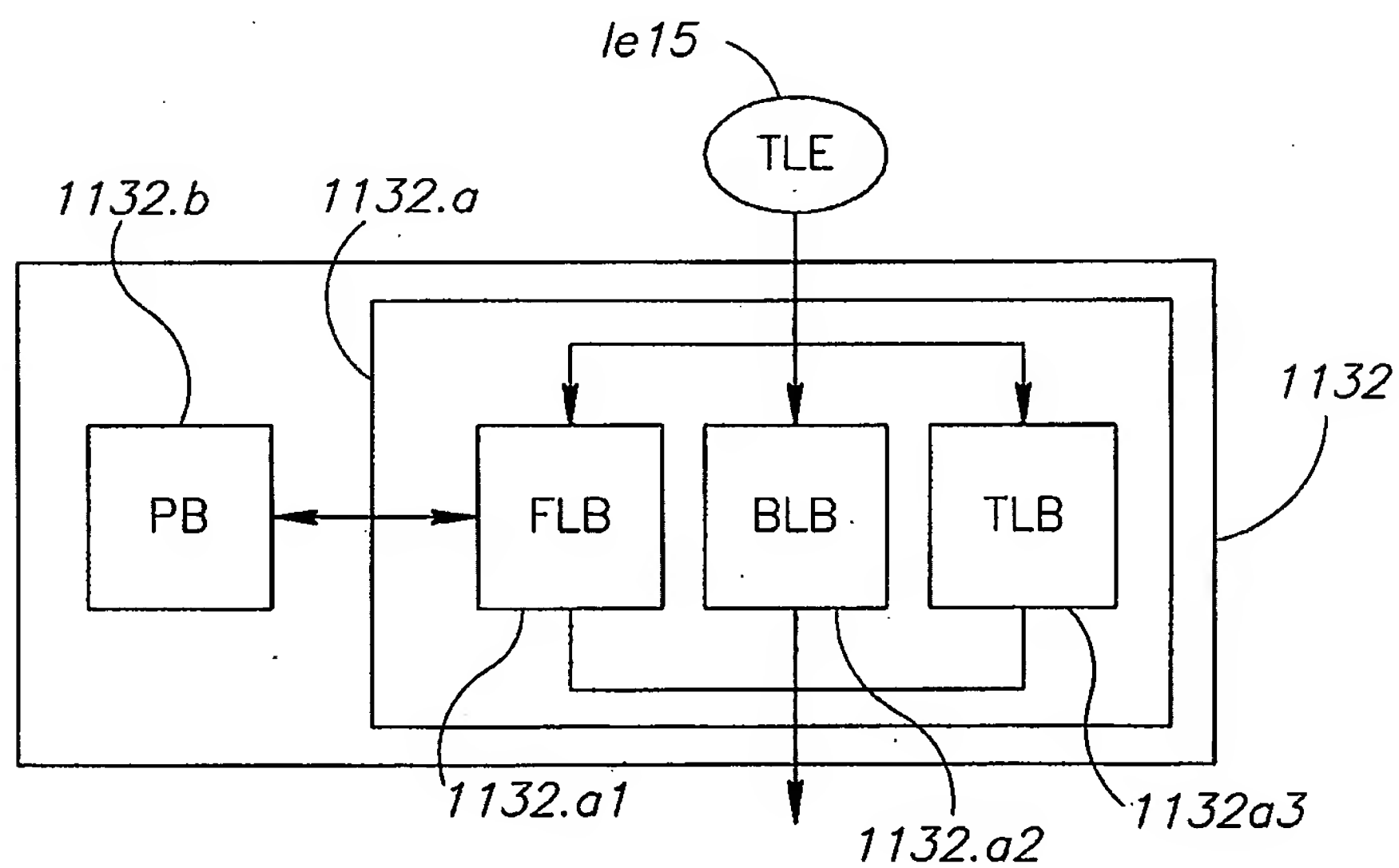


FIG.24

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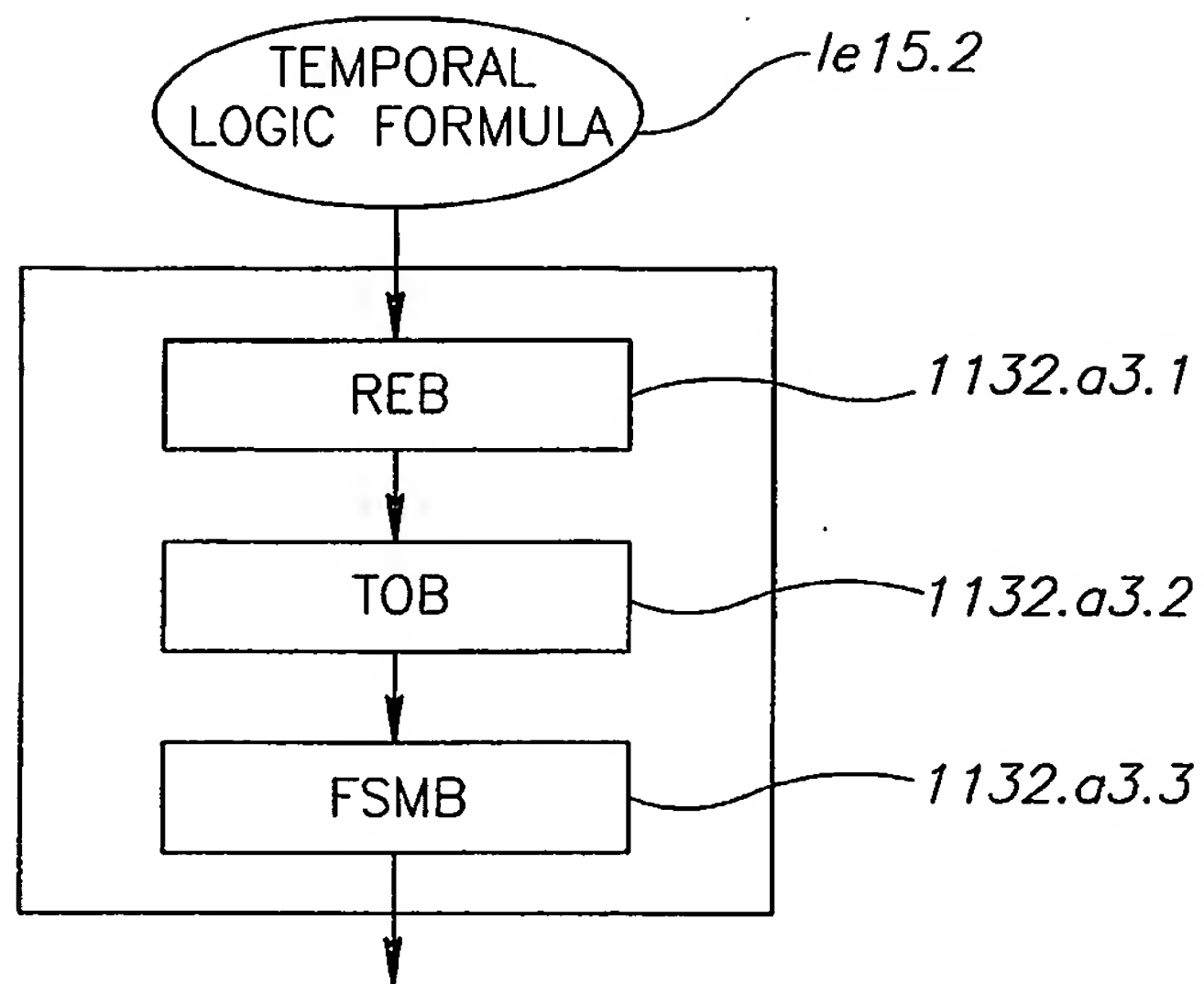


FIG.25

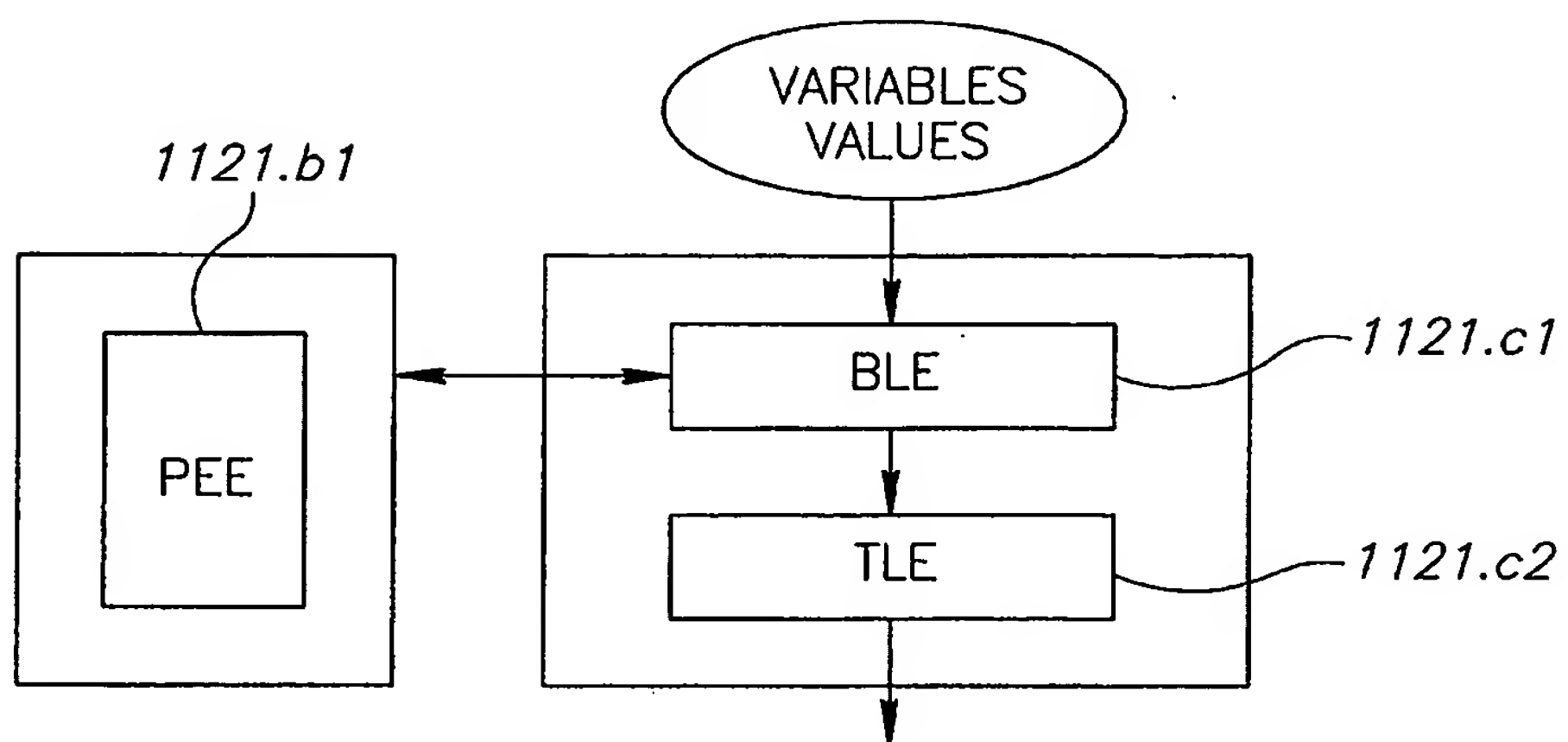


FIG.26